MINUTES OF THE CENSUS ADVISORY COMMITTEE
of the PROFESSIONAL ASSOCIATIONS

(This Committee consists of members of the American Economic Association (AEA), the American Marketing Association (AMA), the American Statistical Association (ASA), and the Population Association of American (PAA).)

CONTENTS

Page

APPENDIXES

Minutes Prepared by the History Staff

ATTENDANTS AT MEETING

(Asterisk [*] indicates attended one day only)

Present

Jacob Klerman, Chairperson

Laurie Ashcraft, AMA
Patricia Becker, PAA
Robert Bell, ASA
Ernst R. Berndt, AEA
Roger R. Betancourt, AEA
David A. Binder, ASA
Ellen R. Dulberger, AEA
*William C. Dunkelberg, AEA
Beth Fischer, AMA
Joseph Garrett, ASA
Malay Ghosh, ASA
Michael Gort, AEA
Linda Jacobsen, Paa
Katherine Jocz, AMA
F. Thomas Juster, ASA
Jacob Klerman, PAA
Lee Lillard, AEA
Ariel Pakes, AEA
Jeffrey Passel, ASA
Mary Lou Roberts, AMA
Frederic M. Scherer, AEA
Debra Semans, AMA
Elizabeth A. Stasny, ASA
David Steward, AMA
Lynne Stokes, ASA
Roger E. Torangeau, ASA
*Paul R. Voss, PAA

Absent

Tony Adams, AMA
Kenneth Bernhardt, AMA
Dowell Myers, PAA
William O'Hare, ASA
Ross Stolzenberg, PAA
James Trussell, PAA
Doris Walsh, AMA
Robert Willis, AEA
Franklin D. Wilson, PAA

Other Persons Present

Cathryn Dippo, Assistant Commissioner, Bureau of Labor Statistics
Everett M. Ehrlich, Under Secretary for Economic Affairs, United States Department of Commerce
Michael E. Etzel, Chairman, Board of American Marketing Association
Stanley D. Matchett, Consultant

Summary

Introductory remarks. Dr. Riche introduced Mr. Bradford Huther, who had been appointed Deputy Director and Chief Operating Officer. The Director reviewed personnel changes at the Bureau since the Committee's last meeting, and she noted Committee membership changes.

She informed the members of a special meeting to be held on July 10 to consider the Office of Management and Budget's announcement with respect to its Directive 15 on racial classification and the implications of that directive on Census 2000.

Dr. Riche informed the Committee about Bureau activities since the members last met, including the testing of the American Community Survey and the completion of the first release of post-censal county income and poverty estimates for reference year 1993 (the information is used for allocating $7 billion of title 1 funds). She said the agency would like feedback from the Committee about the new Survey of Program Dynamics, intended to measure the impact of welfare reform on families and children. Later this month, the Bureau expects to release its research report on the Race and Ethnic Targeted Test.

She notified the members that the North American Industrial Classification System was about to be finalized, and that this system will be used for the 1997 Economic Census.

As of February 2, 1997, responsibility for the census of agriculture has been transferred from the Census Bureau to the U.S. Department of Agriculture

Dr. Riche commented on the Bureau's 1997 budget request, saying that it had been cut by 26 percent. This required the Census Bureau to institute major cuts in its programs, but these cuts did not hurt the national accounts. Continued reductions, however, will hurt.

She described four recent proposals for revamping the Federal statistical system, and noted that the sponsors of all these bills think that their particular prescription will save money. The agencies involved have asked for funds to support these efforts, but have never received support from Congress.

With respect to Census 2000, Dr. Riche said both the Department of Commerce's 2000 Census Advisory Committee and the four Census Advisory Committees on Race and Ethnic Populations have agreed with the members of the Professional Associations Advisory Committee's recommendation about using direct sampling in Census 2000. The General Accounting Office has reported that the Census Bureau has not done a good enough job in communicating with the Congress, and has put the decennial census program, for the first time, on its list of 25 "high risk" Federal programs, because of the disagreement between the Congress and the Administration on funding and methods.

In February 1997, the agency received the results of a study by WESTAT on proposed census wage rates. Essentially, WESTAT believes that with the labor market as tight as it is the Bureau can still obtain the number of temporary employees it needs (about 285,000) if it raises the proposed wage scale sufficiently.

An outsourcing contract has been awarded to Lockheed Martin for electronic imaging systems.

On April 1, the Bureau submitted to Congress the list of subjects for which data will be requested in Census 2000. Recently, the Bureau testified before the House of Representatives and the Senate committees on such issues as sampling, budget, racial classifications, and outreach for the census. She also discussed amendments calling for such things as “no sampling in Census 2000,” and Senator Stevens believes the census can be done without a long-form questionnaire because its causes the undercount. The Bureau expects congressional concerns over both money and methodology to come to a head with the fiscal year 1998 appropriation.

How Do We Convert the 1992 Economic Census to a NAICS Basis? (AEA, ASA) Dr. Hogan said a number of data users have asked the Census Bureau to retabulate the 1992 Economic Census data based on the North American Industrial Classification System. The background document presents two possible methods to do this. Both methods were described, their underlying accuracy was discussed, and the estimated resources were given.

Dr. Hogan reported that the Office of Management and Budget has released the final plans for the North American Industrial Classification System, and he reviewed the Census Bureau’s proposals for converting national-level aggregated statistics from the 1992 Economic Census to the North American Industrial Classification System. He said that Census will try to retain all the establishments’ identifiers involved in a merger to facilitate linking. He added that for the 1997 census establishments will be assigned both a Standard Industrial Classification code and a North American Industrial Classification code.

Mr. Mesenbourg reported that the design and content of the 1997 census questionnaires have been “frozen” and are going to the printers. The mailout to establishments will be based on their respective Standard Industrial Classification codes. Additional items have been added to the questionnaires that will allow the Census Bureau to assign a North Atlantic Industrial Classification code to each establishment.

There was additional discussion as to the ramifications of converting the 1992 and 1997 economic data to the North Atlantic Industrial Classification System.

How Should the Census Bureau Communicate Plans for 2000 Census Products? (AMA, PAA) Ms. Becker (PAA) said the agency needs to invite data-user input on Census 2000 product design and to develop a research plan to examine user response to the new Data Access and Dissemination System. The research should be done by a group outside the Bureau (like the Association of Public Data Users) because agency staff do not know how outsiders use census data. Also, she suggested that the agency needed to extend the partnership concept to data delivery systems for data users.

Ms. Becker emphasized the importance of informing data users that some census data will be available off line (on products such as CD-ROMs), and that users should not be required to go on line every time they need to aggregate data from a new group of census tracts. She also believed that the analytic software on the Bureau’s CD-ROMs should be improved to allow for the aggregation of geographic units and possibly the creation of new variables. Dr. Voss (PAA) agreed.

Dr. Roberts (AMA) agreed with Ms. Becker’s suggestion that the Bureau review those parts of the consultation process that had worked in 1980 and 1990 and those that had not.

Mr. Kavaliunas said the Bureau agreed with much of Ms. Becker's comments. The primary products from Census 2000 will be standard tape files 1 and 3 or derivatives of those files. It will be necessary, however, to market Census 2000 products because a great many potential customers are not aware of the exact nature of the data the decennial census produces.

Dr. Roberts suggested that the Bureau consider adding some Census 2000 product questions to the registration process on the agency's Internet web site, placing a short Census 2000 product questionnaire on the site, and using electronic mail and Bureau publications to direct data users to the web site. She thought the Bureau should consider developing and promoting one primary Census 2000 message or theme for each major group of data users as well as one or more secondary messages.

Ms. Ashcraft (AMA) said she was very pleased that the Bureau had adopted "the official statistics" as a slogan and hoped it would help create a public identity for the agency.

Dr. Jacobsen (PAA) noted that the planning process needed to include documentation as well as data products and suggested that the Bureau ask users about documentation as well as table shells.

Dr. Passel (PAA) said it was very important for outside data users to help the Bureau design and test its data products.

What improvements can be made to the new American Community Survey introduction and benchmarking plans (ASA, PAA). Mr. Waite announced that the Census Bureau would no longer use the term "benchmark"; instead, it would be called "comparison plan." That plan will compare the American Community Survey with the Census 2000 long-form questionnaire data.

He discussed the agency's original Continuous Measurement Program, but because of the large cost to implement it, the Census Bureau has developed an alternative to the original proposal. Mr. Waite said that this drastically reduces and redesigns the sample that will participate in the American Community Survey during the comparison years 1999 to 2001 and delays the national portion of the comparison sample by 1 year. Census will begin the full American Community Survey as a 3-percent sample beginning in 2003. In addition, the new Continuous Measurement Plan will provide the infrastructure for increased integration of data from Federal Household Surveys.

He said the plan will be divided into two parts, and he discussed each. He noted that the purpose of the comparison counties is to give a good tract-by-tract comparison between the 1999-2001 American Community Survey cumulated estimates and the Census 2000 long-form questionnaire estimates, and to use these comparisons to identify both the causes of differences and "diagnostic variables" that tend to predict a certain kind of difference.

Based on the comparison, the Bureau will adjust the Census 2000 long-form estimates for all census tracts and places to look like what the American Community Survey procedures would have yielded.

The American Statistical Association and the Population Association of America subgroups addressed three questions raised by Mr. Waite

Dr. Ghosh of the American Statistical Association subgroup made several points. He fully agreed with the idea of the American Community Survey and thought it would be especially useful for the intercensal period; however, because of the "design" of the revised plan, the sampling error for a given year for the American Community Survey would be much larger than the sampling error in the decennial census, which would force the Bureau to do some averaging. He proposed that the Bureau produce a composite estimator for Census 2000, and described in some detail what should be done to do that.

Dr. Alexander described what the Population Estimates staff should do with census data. He noted that the discussions with data users are not so much about the statistical methodologies, but about how people would use these numbers and what properties of the estimates people would be interested in. The data users panel favors an alternative approach with a more explicit use of time series methods.

How will measuring the information sector impact the Bureau's programs? (AEA) The impact on the information section was presented: The North American Industry Classification system represents the first major structural revision of the Standard Industrial Classification system since introduction in the 1930's. One change introduced by the new system is the creation of an information sector, a major classification group comprised of industries involved in creating, manipulating, or distributing intangible intellectual property, such as publishing, broadcasting, telecommunications, and motion picture production. For the first time ever, activities related to an intangible product are recognized as a distinct industry type. The background document explored the major challenges associated with measuring the information sector and their impact on the Bureau's data-collection programs.

Dr. Dulberger advised that Census Bureau should start with an analytical chart to gauge how well the data the agency proposes to capture might answer the questions the Bureau wants answered. She recommended that the Bureau work with a forum of accounting professionals because these individuals help firms develop measures of the firms' influence corporate record keeping, and she believed that the large number of small firms in the information sector presented a challenge for measurement purposes.

Dr. Betancourt said that time plays a critical role in the information industry, and that time has three dimensions—duration, intensity, and timing. He discussed the three.

Dr. Dulberger said that the kinds of industries discussed face a problem of not knowing what happens in the mix of transactions, and Dr. Scherer suggested using a concept of "manned-with-hours." Dr. Scherer suggested breaking down the investments data into at least four components—computing equipment, communications equipment, structures, and all other equipment.

What should the Census Bureau charge for on the Internet and What Market segments should we target? (AMA) The AMA subgroup discussed the establishment of CENSTATS, a for-fee data access service on the Internet. Dr. Stewart said that because the Bureau is restricted in its ability to charge customers for products, it needed to carefully define what it is selling. He then noted the five key elements of the "value proposition," and offered them as dimensions of a delivery system for the agency's data that might create value. With regard to value-added products that might be included in the subscription service, Dr. Stewart suggested that market research on the needs of paying customers could prove very useful. With respect to which market segments to target, he said that Federal and state government agencies and education institutions would probably not be able, or willing, to pay very much for access to Bureau data. While it must make some statistics available to these groups, the information does not need to be precisely the same as that made available to paying customers. He went on to suggest a promotion trial package of census data people could try at their convenience.

Referring to the promotion of Bureau products, Ms. Ashcraft urged the agency to be certain that Internet search engines can find census data through the use of key words and to assure as many links to other relevant sites as possible. The members felt that the price of the Bureau's subscription products should be more than is presently being considered because if the data are priced too low, the agency's web site may be overwhelmed.

What opportunities for cooperative research and development agreements should the Census Bureau pursue? (AMA) Ms. Jocz described the Bureau's initial three goals of the cooperative research and development agreements, the two agreements the Bureau had already concluded (cost savings and improved data handling and efficience), and she suggested several other goals the agency could explore using partnerships. She recommended that the agency attempt to establish cooperative research and development agreements with organizations that share (1) some congruence of goals with those of the Bureau, (2) cultural characteristics, and (3) commitment to a particular project.

She argued that any agreement between the Census Bureau and a cooperative research and development agreement partner should specify (1) the value being created, (2) the expertise each partner will contribute, (3) which partner will maintain control over how the expertise is used, and (4) the distribution of the fruits of the partnership.

Ms. Jocz said the list of products listed in the background paper were excellent, and that the Bureau should take care to develop products that are clearly differentiated in the market place and are not the result of slight modifications of existing products. With respect to the possibilities for outreach to other organizations, the agency should investigate advertising in the newsletters of associations such as the Institute for Operations Research and Management Science or the Council of American Survey Research Organizations.

Dr. Stewart suggested that the Bureau consider forming partnerships with some of its suppliers as test sites for particular applications.

What are the issues in implementing the Survey of Program Dynamics? (ASA, PAA) Ms. Johnson said the Bureau is planning a Survey of Program Dynamics to simultaneously measure important features of the full range of welfare programs and the full range of other important social, economic, demographic, and family changes that will facilitate or limit the effectiveness of the reforms enacted in the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. The Bureau plans to collect data for each of the 6 years from 1996 through 2001, providing data for 10 years (1992-2002) when combined with the 1992 Survey of Income and Program Participation data.

She discussed the three fundamental sections of the Survey of Program Dynamics design, and then gave a status report on each of the three phases of that survey. With respect to that survey, Ms. Johnson asked the Committee members to provide advice to the Bureau on subsampling, weighting, and microdata files. She then asked the two subgroups to address the questions raised in the background document.

Dr. Juster (ASA) congratulated the Bureau for getting the Survey of Program Dynamics started, and thought it would be useful to find out what happened as a result of the 1996 law. He felt that Census should seriously think about sampling according to the differences among the states.

With respect to weighting, he wondered if the Bureau should release a microdata file. This would be an invitation to disaster.

Dr. Passel (PAA) said he believed that some serious problems would occur for the Survey of Income and Program Participation data users. He reiterated that it was important to include an oversample of households that would be affected by the new welfare law. Noncitizens would be most hit by welfare reform, and, therefore, it was particularly important to consider the legal status of the noncitizens as soon as possible.

In reference to weighting, Dr. Passel believed that the Bureau was better equipped to deal with the issues than most data users, but he observed a serious problem with the sample.

Dr. Lillard (AEA) suggested that the Bureau develop a sample selection process that would be relatively simple and easy to understand.

Dr. Binder (ASA) wondered whether or not the Bureau would be using the differential sampling fractions and what the objectives were. He believed that the sampling fractions should be based on the Bureau's objectives, and the objectives should be based on model-based predicted probabilities of whatever it is that the agency is trying to do. He also said that he did not know why weighting was such a major issue.

Dr. Klerman (PAA) discussed the substance rather than the statistical issues involved in the Survey of Program Dynamics. Specifically, he felt that that survey is fatally flawed for dynamics because there is a "big hole" for up to 2 years when no data were collected for this survey. He believed that the money available for the survey could be spent for something else.

Dr. Weinberg explained that there would be no "hole" as mentioned by Dr. Klerman, and described the Survey of Program Dynamics collection procedure. Dr. Klerman did not fully agree with Dr. Weinberg's explanation.

Dr. Passel said he thought it would be a significant mistake to weight the Survey of Program Dynamics to the April 1997 population when it is not representative of that population.

Dr. Weinberg provided the members with additional detailed information, and addressed some of the Committee's concerns.

What have we learned from the medical expenditure panel survey-insurance component pilot? (AEA) Mr. Rudolph reported that the Census Bureau is conducting the Medical Expenditure Panel Survey-Insurance Component for Health Care Policy and Research of the Department of Health and Human Services. He gave a brief overview of the kinds of data being collected, the sample's size, and that the Census Bureau is completing a pair of pilot studies that evaluated survey techniques.

Dr. Berndt said that it was a very good idea that the agency is undertaking a project covering the nonhealth aspects of companies on a much wider range than the Fortune 500 Companies cover, but he felt uneasy about requesting a company's length of existence.

Mr. Cooper described the survey as a combination of two surveys that provide different health information—one is a random sample of establishments; the other, a sample of establishments obtained from a households survey. He said that employers often do not know the specifics about their insurance plans but that they could provide valuable information about their own and their employees' share of employees' premiums; he expected the household sample to reveal information about these employers.

Mrs. Summers said that Census will start collecting data in August 1997 and plans to make the list-sample files available by mid-1998; information from the household-sample cases should follow several months later.

Assessment of integrated response and product marketing plan for the 1997 Economic Census. (AMA) Mr. Wallace discussed the integration of the Bureau's marketing programs which target both the response rate and product use of the 1997 Economic Census. He showed a 9-minute film which highlighted suggestions and observations of focus groups' participants. He said that feedback from the participants, and other sources, indicates that respondents are extremely unaware of any benefits to business or society from the economic census. Ms. Ashcraft said that since many individuals unknowingly make use of economic census data obtained through secondary sources, the agency should consider an "Intel inside" strategy with major firms and organizations.

Ms. Ashcraft said an integrated marketing message for both products and responses makes good sense. With respect to how the Bureau should prioritize its marketing options, she said that the first priority should go to the ad agency. Dr. Roberts said that perhaps the Bureau should direct its questionnaire delivery to company marketing departments, and Ms. Jocz said response marketing should be directed to the person filling out the questionnaire.

With respect to which of the media the Bureau should give top priority for disseminating its marketing message, Ms. Ashcraft said the ad agency should develop a priority list as part of its media plan, and Ms. Jocz suggested Inc. Magazine. Mr. Wallace added that the 1997 census itself was at stake given the prevailing budgetary constraints being imposed by Congress. Dr. Roberts suggested that the agency should attempt to get its message to the small businesses themselves, as well as their national associations.

Dr. Roberts asked if Census had developed a priority list of programs to cut in case it is faced with its worst case scenario; if so, the Bureau needs to communicate its consequences to those users most affected by possible additional cuts in funding. Mr. Wallace said that such a priority list has been developed, but the agency was hoping that it would not need to communicate these contingencies to its users.

Should we add "noise" to data as a disclosure limitation option? (AEA, ASA, PAA) Ms. Zayatz discussed her paper on adding "noise" to data as a means of avoiding disclosure of respondents. She reviewed how the Bureau had accomplished this objective in the past, and that adding "noise" was less used. Members of the American Economic Association, the American Statistical Association, and the Population Association of America subgroups addressed three important questions put forward by the Bureau.

Dr. Voss (PAA) believed that using "noise" as a disclosure limitation option affects the amount and quality of data available to the users, and that systematic research in this area should be encouraged. He said that data swapping seemed to work well enough for the 1990 Censuses of Population and Housing; however, after studying the 1990 data for his block, Dr. Voss felt the data may have revealed a little too much about the block's one Black male, but not enough to be problematic for the agency. Once the research is complete, the Bureau should use masking techniques, probably at the microdata level.

Dr. Lillard (AEA) said the addition of "noise" to data raised two concerns—(1) for microdata, the perturbation of adjoining cells may result in a net loss of data and (2) random swapping of information could be problematic, as well, especially if the swapping is across states or other geographic areas.

Dr. Bell (ASA) said that there presently are no clear answers to whether the agency should add "noise" to its data since there were four conflicting goals regarding disclosure avoidance, and he noted them.

Ms. Zayatz said Census was studying how different techniques would affect the data, particularly longitudinal data.

Drs. Scherer (AEA) and Binder (ASA) said that economic data were extremely skewed, and that the skewness usually was most pronounced in the largest category. Consequently, the amount of "noise" that would have to be added to avoid disclosure most likely would result in unintelligible data. The better alternative was data suppression.

Dr. Stasny (ASA) said it was critical for the Bureau to tell data users what disclosure techniques were used, especially the less-sophisticated majority; otherwise, they were likely to misuse the data.

Dr. Knickerbocker emphasized the need to keep respondents' information confidential.

The U.S. Census Bureau's marketing training and education program: present needs and future challenges. (AMA) Ms. Spinazzola gave an overview of the Bureau's strategic plan for the marketing training and education program noting that the agency's Marketing Services Office is trying to foster the development of a customer-oriented and market-driven culture to achieve greater customer satisfaction. She described the four strategic goals and the eight steps that will be taken to achieve these goals. She then discussed a number of seminars that have been and would be conducted, and noted proposed plans to conduct workshops for fiscal year 1998.

Dr. Stewart said he believed that the Marketing Training and Education Program was very impressive and ambitious, and that the type of training underway will benefit the agency. He emphasized, however, that he was very concerned that the plan was too ambitious. He said he thought there was consensus among the Bureau's staff that "customer focus" or "market focus" (terms he did not quite understand) was a good thing at the abstract level, but he did not get quite so much agreement when he asked the staff who were their customers, what were their priorities, and where should the marketing staff focus. He believed that it is important in an organization to distinguish between being "market-focused" and being "marketing-focused." The agency needs to have all of its functions, whether it is accounting, purchasing, or operation, to be responding to the market. For this, the Bureau's staff need to have some exposure to serving customers and markets. He said he believed that the Marketing Training and Education Program courses were interesting, but the agency should tie to these courses some very specific changes in the organization that the Bureau expects.

Responding to Dr. Roberts, Mr. Kavaliunas said the Census Bureau was far ahead of other agencies in customer focus. The agency has received requests from other Federal Government agencies for attending Census customer service workshops. Ms. Fischer and Ms. Ashcraft noted that the Bureau should take advantage of these requests from other agencies to share ideas of customer services and marketing.

Final review of new product development guidelines. (AMA) Ms. Dickinson gave an overview of the Bureau's product development guidelines, which the agency hopes will provide one seamless electronic product registry and provide data users and management with a complete listing of all Bureau products and services. She noted that the Marketing Services Office's product development plan was modeled after that of Statistics Canada. Because the initial plan received a cool reception by the Bureau's subject-matter divisions, the Marketing Services Office brought together all areas at the Bureau that needed product registry and formed a subcommittee to fully define the variety of needs to develop a single accessible source of product information. The goal is to develop a single corporate repository of all products and services including metadata, an order-entry inventory and financial management system, and marketing intelligence leading customers to specific products and transactions. Ms. Dickinson asked the AMA subgroup to address a list of three questions in the background document, "New Product Development Guidelines," as well as four questions she raised at the meeting.

Dr. Stewart and Ms. Fischer said they believed that the Bureau must recognize people in every step of product development to generate higher motivation, and Ms. Fischer added that the Bureau ought to create an atmosphere where people feel good about how they could improve something and how they could contribute toward product development.

Ms. Semans noted that even if a product is not marketed, people who developed it step-by-step should still be recognized for their efforts, and Dr. Stewart suggested that the Bureau use the phrase "reward for learning" rather than using the term "reward for failure."

How should we proceed to develop generalized software for survey processing operations such as editing, imputation, estimation, etc? (ASA) Prior to the members discussion of the above topic, Dr. Clark explained that statistical confidentiality legislation had been prepared with the agreement of eight Federal statistical agencies, including the Census Bureau, allowing these agencies to use each others' data for analytical and statistical purposes.

Referring to the discussion topic, Mr. Sigman said the Census Bureau is reengineering its data processing systems for economic surveys and censuses. For economic censuses and the Annual Survey of Manufactures, the agency is replacing much of the edit-and-imputation portions of census-specific systems with a general-purpose subsystem called Plain Vanilla. For its current economic surveys, the Bureau is developing a single processing system, called the Standardized

Economic Processing System, to replace 15 separate systems used to process 113 current economic surveys. He provided the ASA subgroup with a description of each of the modules.

Dr. Binder agreed that developing generalized survey-processing software systems seemed like an excellent idea; one of the first issues the Bureau would face in this regard would be whether to develop and maintain these systems within the agency or to contract the work to outside organizations. Dr. Binder felt that data collection and capture, sampling, estimation, edit and imputation, confidentiality, record linkage, and analysis and dissemination should be among the activities for which the Bureau might consider developing generalized programs.

With respect to the edit and imputation system, Dr. Binder said the developers need to think about the relationship between data collection and capture and edit and imputation. The agency will need to know how much editing a generalized data-capture system should do and which edits should be implemented during the edit and imputation stage. He expressed some concern about how easy it would be in the proposed generalized system for data analysts to change responses. He also worried about the "Plain Vanilla" system's inability to determine imputations that simultaneously satisfy ratio and balance tests because this could lead to a lot of recycling and inefficiencies. He suggested that the Bureau consider alternatives to using its older systems (like the older versions of FORTRAN) and noted that Statistics Canada has switched to a SAS-based approach to estimation and sampling. He gave some background information on the generalized systems for data capture, sampling, automated coding, and record linkage.

The Bureau and ASA members also discussed imputation formulas, the ratio-edit program, and the impact of a switch to generalized systems on time-series data. Dr. Tourangeau (ASA) noted that the cost savings of introducing generalized systems are sometimes, but not always, dramatic.

Discussion of concept differences between American Community Survey and Census 2000? (PAA) The Bureau reported on the design for the 1996 American Community Survey. The first objective was to design the survey (because of several factors) as a "rolling" monthly sample rather than as an "annual sample census" conducted around census time each year. The second objective was complete coverage of the population and completeness of the collected data. Dr. Jacobsen did not see a simple and straight-forward answer to the agency's question on whether using different concepts for the decennial census (usual place of abode) and the American Community Survey (current residence) would be appropriate. She suggested that the Bureau should provide block-group-level intercensal population estimates to appease those persons who worry about data at that level. She also suggested that Census allow a variety of users with different purposes and uses to experiment with the survey data and see for whom the data work before a decision is made.

Dr. Jacobsen suggested that Census might use split samples or review ethnographic literature to examine the patterns of people who do not have a usual residence to decide upon the suitability of 2 months as the amount of time for defining current residence. Ms. Becker disliked the idea of using different rules for the survey and the census, and she gave reasons why. She did not see a problem in applying the usual-residence rule to the survey for individuals with more than one residence. Dr. Alexander believed that the Bureau, as a legitimate alternative, possibly could go back and collect the survey data on a current-residence basis and force those numbers to agree with a usual-residence-based number.

Dr. Klerman believed all the worry over the American Community Survey and census numbers matching is unnecessary, and he feared the possibility of double counting.

Market research at the Census Bureau—are we on the right track? (AMA) Ms. Dickinson informed the AMA members that a great deal of the Bureau's marketing activities will be Intranet-based; this system would include sales statistics query and report capabilities.

Mr. Zeisset made a slide presentation noting that the Bureau's Intranet site was not yet fully implemented. Ultimately, the Intranet will not only include the above information, but also guidelines and policy statements, marketing briefs, and marketing plans. The sales statistics site will include a feature on customer feedback.

Ms. Dickinson gave some background on the Marketing Services Office, and she noted the three types of market research that the office is trying to develop. The overall plan envisions preparing regular reports to executive staff and program managers for communicating marketing information as well as retrieval capabilities through the Intranet. She also noted the three ways the Marketing Services Office will establish a base line and ongoing measures for customer satisfaction.

Ms. Fisher felt that the Bureau had done an outstanding job not only in embracing the challenge of being marketing-driven, but also in knowing the tools and activities that would be crucial. She listed some key components of research that she felt were important, and then addressed the questions raised in the background document. Ms. Ashcraft greed with Ms. Fischer's commentary, and then mentioned four things that worked for her when she was a marketing research director for a manufacturing company.

Center for Economic Studies. (AEA) Dr. Haltiwanger reviewed the role of the Chief Economist of the Census Bureau and the Chief of the Center for Economic Studies, the current and proposed initiatives of the office, and the areas for which the Bureau wanted advice and suggestions from the Committee. He next described his broad goals, of which there are three. He said that there is relatively little disagreement about them, but there are tough issues about the allocation of resources and priorities for achieving them.

If high-quality microdata is a goal, the Bureau has to consider how to obtain this information. The Center for Economic Studies is working on developing microdata sets and providing access to them for users. The creation of the two research data centers has shown that there is a much broader range of data users than previously thought, and a major goal of the Census Bureau is to provide users with wider access to its data. He provided information on the five kinds of data sets available at the research data centers. He noted that the Bureau is working with the National Science Foundation as the best way to expand the program, and the agency believes it can support four more centers over the next few years.

Dr. Haltiwanger noted that there is an opportunity to combine various data sets to yield very useful information and he gave an example. In addition to working on health issues involving both employer and employee data sets, another matched employer-employee data set is the worker-establishment characteristics database, based on 1990 Decennial Census data.

Dr. Berndt felt that the Center for Economic Studies should consider working with some outside organizations that are involved in issues regarding, for example, the manufacturing/nonmanufacturing situation. The question that has to be considered is what exactly should be measured for the new industries.

What are the main issues facing the Federal Economic Statistics System? (AEA) Dr. Ehrlich said that the Census Bureau was preparing to conduct the first decennial census using the full range of statistical techniques and sophistication developed over the past half century. However, the Senate was scheduled to vote on a bill that included an attachment barring the use of sampling in the decennial census.

The concept of a Federal statistics system is no longer considered "odds against." Several proposals were issued at various times to move the Census Bureau and the Bureau of Economic Analysis to the Department of the Treasury, the Department of Labor, or the Office of Management and Budget. Dr. Janet Norwood, the former Commissioner of Labor Statistics, called for the consolidation of the Census Bureau, the Bureau of Economic Analysis, and the Bureau of Labor Statistics into a single agency outside of any cabinet department. Her proposed organization will have four operating units–the Bureau of Economic Analysis, the Bureau of Labor Statistics, the Bureau of the Census (minus decennial census), and Decennial Census.

Dr. Ehrlich discussed what the consolidated statistical agency, as proposed by Dr. Norwood and others, would result in, and he also noted the potentials of consolidations.

Dr. Dulberger said that she was asked to comment on Senator Moynihan's proposed bill; the Moynihan-Kerry Bill calls for spending $30 million to examine the statistical system before making any changes.

Dr. Ehrlich said the U.S. Chamber of Commerce has not reacted to the proposals to reorganize the statistical system, and that there was less input from academia to the consolidation plan. Dr. Pakes commented that Congress did not seem to understand the uses of the statistical data.

Develop recommendations and special interest activities. Dr. Dulberger (AEA) proposed a recommendation addressing the Bureau's plan to add "noise" to data to improve confidentiality. Dr. Lillard (AEA) suggested a recommendation that would encourage the Bureau to maintain confidentiality while continuing to release as much detailed data as possible. Dr. Scherer (AEA) noted that the tone of the Bureau's presentation on adding "noise" to data was skeptical. Dr. Gort (AEA) said that no single methodology would be best for every purpose; for certain data sets, suppression would be best; for others, masking or "noise" would be better.

Dr. Dulberger (AEA) drafted recommendations with regard to measuring the impact of the information technology sector on the Bureau's program.

Dr. Dunkelberg (AEA) noted that the costs of converting the 1992 Economic Census data to the North American Industrial Classification System would decisively outweigh the benefits. Dr. Scherer (AEA) suggested the Bureau provide data that would enable users to identify those industries that have historical continuity and those that do not.

Ms. Jocz (AMA) suggested that the Bureau continue to form partnerships with commercial research suppliers and academic institutions. Dr. Roberts (AMA) suggested that the Bureau develop an aggressive and proactive communications plan for the Data Access and Dissemination System.

Ms. Ashcraft (AMA) and Ms. Fischer (AMA) commended the Bureau for its initiative to be market driven and recommended research to support the agency's efforts. Ms. Fischer thought it was important for the Bureau to continue to engage customers in designing Census 2000 dissemination plans. Ms. Semans (AMA) commended the Bureau for developing a strong, integrated product-development process and recommended that the agency place higher emphasis on identifying and providing technical support required for the process.

Dr. Stewart (AMA) commended the Bureau for its ambitious training and development activities and its goals; he recommended that the agency become more customer-focused than market-driven. He also endorsed the Bureau's efforts to develop products for which customers would pay a fee.

Dr. Binder (ASA) presented the ASA's recommendation that the Bureau seriously consider not reconfiguring 1992 Economic Census data from the Standard Industrial Classification System to the North American Industrial Classification System.

On the issue of improving the Bureau's plans to introduce and benchmark the new American Community Survey, Dr. Tourangeau (ASA) pointed out that it would be important to know how much of the change was due to methodological differences between the decennial census and the American Community Survey and how much could be attributed to actual change in the population. Dr. Singh noted that the survey may replace the long-form questionnaire in the 2010 census. Dr. Binder (ASA) noted that some of the variables in the American Community Survey are similar, though not identical, to the census 2000 long form. Dr. Ghosh (ASA) suggested that the agency carefully check its model-based estimates to prevent overfitting and underfitting.

On the issue of implementing the Survey of Program Dynamics, Dr. Tourangeau recommended that the survey include a subsample of low-income households from the March 1996 and 1997 Current Population Survey to improve the quality of the estimates from the Survey of Program Dynamics. Dr. Juster thought that the Survey of Income and Program Participation would be a better source for supplementary information than the Current Population Survey.

Dr. Binder welcomed the Bureau's efforts to research methods that would allow the release of more data without compromising confidentiality. Dr. Stasny (ASA) pointed out that adding "noise" was significantly different from doing imputation or editing. Dr. Bell (ASA) wondered if the Bureau should notify data users about the limitations of data that incorporate "noise" factors.

On behalf of the ASA members, Dr. Binder commended the Bureau for developing and using generalized software for survey processing operations.

During this session, the (PAA) members commended the Bureau for its timely development of a product marketing strategy for Census 2000, and the (PAA) members made three recommendations to the Bureau. (For a detail explanation of the members recommendations, see Appendix A.)

Closing session. During this session, the four subgroups presented their respective recommendations to the Bureau (see Appendix A), and there were no public comments.

The meeting adjourned at 12:08 p.m.

Introductory Remarks

Dr. Riche welcomed the Committee and introduced Mr. Bradford Huther, who has been appointed Deputy Director of the Census Bureau. Mr. Huther was formerly at the Patent and Trademark Office. She added that Dr. Michael Etzel, the Chairman of the Board of the American Marketing Association (AMA), is in the audience today.

With regard to Committee membership, Dr. Riche noted that the terms of Dr. Kenneth Bernhardt and Dr. Mary Lou Roberts of the AMA will expire after this meeting, and they will be leaving the Committee. Drs. Roger R. Betancourt and Frederick M. Scherer have joined the Committee representing the American Economic Association (AEA), Dr. F. Thomas Juster is a new member for the American Statistical Association (ASA), and Drs. Dowell Myers and Paul Voss have been reappointed for the Population Association of America (PAA).

Dr. Riche announced that the next meeting is scheduled for October 23-24, at the Embassy Suites Hotel in Washington, DC. Committee members also are invited to attend a special meeting on July 10 to consider the Office of Management and Budget's (OMB's) announcement with respect to its Directive 15 on racial classification and the implications of that directive on Census 2000. The meeting will involve not only this Committee, but the Census Bureau's Race and Ethnicity Advisory Committees (REACs) and the Department of Commerce's Census 2000 Advisory Committee.

Dr. Riche reviewed the Bureau's activities since the Committee's October 1996 meeting. The agency has begun testing the American Community Survey (ACS) at four sites across the country. The Bureau has added four more test sites to the test and is obtaining surprisingly high response. The agency expects to release data for the first test site in July.

The Census Bureau recently completed the first release of post-censal county income and poverty estimates for reference year 1993; the agency hopes to be able to complete similar estimates for 1995 soon. This information is used for allocating $7 billion of title 1 funds for compensatory education programs. School districts in fast-growing areas felt that relying on census data over a period of 10 to 12 years left them at a grave disadvantage, and the Congress directed the Bureau to convert its experimental work on county-level poverty estimates into a production program. The National Academy of Sciences (NAS) reviewed the experimental program and the data from the decennial census and recommended that the two data files be combined, and the result divided by two.

Dr. Riche said the Census Bureau wants to consult members about the new Survey of Program Dynamics, intended to measure the impact of welfare reform on families and children. The funding for this program is not tied to annual appropriations, but is authorized for the entire 10-year period of the study.

She added that, later this month, the agency expects to release its research report on the Race and Ethnic Targeted Test (RAETT). The RAETT, done for the OMB, measured how people responded to various questions about race and ethnicity on the census form.

The North American Industrial Classification System (NAICS) is about to be finalized. The Census Bureau developed the NAICS in cooperation with the Bureau of Economic Analysis (BEA) and the Bureau of Labor Statistics (BLS), and with the collaboration of Statistics Canada and Mexico's Instituto Nacional de Estadistica, Geografia e Informatica (INEGI). The new system will be used for the 1997 Economic Census.

Dr. Riche reported that as of February 2, 1997, responsibility for the census of agriculture has been transferred from the Census Bureau to the U.S. Department of Agriculture (USDA). The Census Bureau found that it could not design an adequate census given the funding authorized by its appropriation committee without a major—and unacceptable —redefinition of the concept of a farm. The program was transferred to the USDA, and then the agriculture appropriations committee provided full funding for the program.

Dr. Riche commented that the Bureau's 1997 budget request was cut by 26 percent, which was the second year in a row for a major reduction. The agency has cut everything from its programs that it can without hurting the national accounts, but continued reductions will mean additional cuts that will hurt. The agency is concerned that major cuts will continue.

The spring has produced the usual series of proposals for revamping the Federal statistical system:

- Senator Moynihan has a bill proposing another commission to study the system and make proposals for improvements.
- The National Association of Business Economists has proposed a commission as well.
- Representative Horn of California has sponsored a bill to merge the Census Bureau, the BEA, and the BLS.
- Representative Royce of California has introduced a bill to abolish the Department of Commerce, transferring the Census Bureau to the Department of the Treasury and the BEA to the Federal Reserve.

The sponsors of all these bills think that their particular prescription will save money, although some also make cuts of as much as 25 percent in funding. The statistical community believes statistics can be improved by improved cooperation and collaboration between statistical agencies. The Interagency Committee on Statistical Policy has developed a list of proposals for expanding collaboration among statistical agencies to reduce duplication and save money, carry out joint research and experimentation, and look at joint infrastructure (e.g., electronic data collection). The agencies involved have asked for funds to support these efforts, but have never received support from Congress.

Dr. Riche commented that the members will be interested in meeting Mr. John Haltiwanger, the Bureau's new Chief Economist, who will be talking about the activities of the Bureau's Center for Economic Studies. The Bureau's ASA fellow next year will work to improve the capacity for communications between the Bureau's household and enterprise microdata bases to enable the agency to look at policy issues.

Turning to the decennial census, Dr. Riche said that, since the Committee's October 1996 meeting, the Bureau has met with the REACs as well as with the Secretary of Commerce's Census 2000 Committee, and both advisory bodies supported the Professional Associations Advisory Committee's recommendation about using direct sampling in the census. The six Committees' members have spent a great deal of time and effort trying to help educate Congress about the census and sampling, with limited success. The General Accounting Office has reported that the Census Bureau has not done a good enough job in communicating with the Congress, and has put the decennial census program, for the first time, on its list of 25 “high risk” Federal programs, because of the disagreement between the Congress and the Administration on funding and methods. She noted that Representative Clinger’s committee’s report on sampling —issued before the October 1996 meeting—contained considerable misinformation and misunderstanding.

In February, the Bureau received the results of a study by WESTAT on proposed census wage rates. WESTAT’s report asserted that, with the labor market as tight as it now is, the Bureau can still obtain the number of temporary employees it needs (about 285,000) if it raises the proposed wage scale sufficiently. The report further states that raising the pay rates should not cost very much more than the original lower rates, because there will be less turnover in personnel. In the last census, the Bureau experienced a turnover rate among its temporary employees of 250 percent, which was very costly in itself.

Turning to procurement, Dr. Riche said the Bureau has awarded an outsourcing contract to Lockheed Martin for electronic imaging systems. She pointed out that the Bureau was gratified, after the contract process was completed, when one of the unsuccessful bidders wrote her a letter praising the Bureau’s procurement process.

Dr. Riche said that the new Secretary of Commerce—William Daley—has taken a personal interest in Census 2000, indicating that it is one of three programs he considers to have the highest priority within his department. Secretary Daley is working to improve relations with the Congress.

On April 1, the Census Bureau submitted to Congress the list of subjects for which data will be requested in the Census 2000. The agency has prepared a supplementary binder containing additional information on the questions, such as the uses of the data requested, legislative requirements for each data item, etc. The proposed short-form questionnaire contains only one more question than does the original 1790 census schedule.

Dr. Riche commented that Senator Thompson’s committee held hearings on sampling in the census 2 weeks ago. The Bureau also testified before Representative Rogers’ appropriation committee about the proposed Census Bureau budget. Representative Rogers seemed to appreciate the Bureau’s efforts to reduce the length of the questionnaires, but remains concerned about the address development work. He indicated he will try to do what he can for the agency, but he has not yet received any information on the funds his committee will have to allocate.

Representative Horn last week held the first hearing about racial classification. The OMB is scheduled to announce its decision with regard to racial classifications in October, and it is obvious that no possible decision with please everyone concerned about the issue.

Last week Congress also held its first hearing about outreach for the census, with the mayors of Cincinnati and Milwaukee testifying about their local 1990 census work.

Dr. Riche noted that on April 30 Senator Stevens attached a “no sampling in Census 2000” rider to the flood relief bill. The bill passed the Committee and will be voted on soon by the Senate. Senator Hollings has proposed an amendment to delete the rider because of the additional costs that will be imposed, but Senator Stevens disagreed. Senator Stevens evidently believes the census can be done without a long-form questionnaire, and that it causes the undercount. In fact, using the long questionnaire does cause some increase in overall cost due to increased follow-up, but it has nothing to do with the undercount.

The Bureau expects congressional concerns over both money and methodology to come to a head with the fiscal year (FY) 1998 appropriation. The Bureau's proposed methodology will cost less than the traditional one favored by some members of the Congress, so the agency is looking at the possibility of the worst of both worlds, being required to use the more expensive methodology while having less money to support that effort. The agency is mounting an unprecedented campaign to get the questionnaires to people, but it cannot go into peoples' homes to make them complete the questionnaires they receive.

Dr. Riche noted that the Bureau is asking for a considerable increase in funding for FY 1998, although this includes only $3 million in additional funds for its regular surveys and other nonperiodic programs. However, the Bureau is requesting $65 million for the economic census, and $355 million for the decennial program.

Ms. Becker (PAA) commented that she recently had a meeting with a member of Senator Levin's staff, who had contacted the Census Bureau for information about the plans for the Census 2000. The staffer had come away loaded down with a mass of paper. She suggested the Bureau would be better off distributing copies of the pamphlet "Creating a Census for the 21st Century: The Plan for Census 2000." It is short and understandable, and people wanting more information can ask for it without being inundated with paper that they will never read.

Census Bureau Responses to Committee Recommendations/Report on October, 1996 Meeting

Dr. Dulberger (AEA) commented that when she reviewed the minutes for the Bureau's responses to the Committee's recommendations she was struck by how "old" the responses seemed. Since the responses to their recommendations from one meeting are "stale" by the time of the next meeting, members would like an update at the opening session on the actions the Bureau has taken to implement the recommendations.

How Do We Convert the 1992 Economic Census to a NAICS Basis? (AEA, ASA)

Abstract. A number of data users have asked the Bureau of the Census to retabulate the 1992 Economic Census on a NAICS basis. This paper discussed two possible methods to do this. Both methods were described, their underlying accuracy was discussed, and the estimated resources were given. An example was given.

Many establishments tabulated in the 1992 Economic Census also will be tabulated in the 1997 Economic Census. It will often be possible to link the 1992 record with the 1997 record for the same establishment. For all establishments linked and assigned to the same SIC code in 1992 and 1997 ("matched"), one can assume that the 1992 NAICS code was the same as the 1997 NAICS code. For unmatched establishments, one can impute a 1992 NAICS code from the assumed 1992 NAICS codes of the matched cases within that SIC. The estimation can be done at either the establishment level or an aggregate level. Either of these methods required considerable staff resources. The level of required review depends greatly on which tabulations are required. We assume that only national

estimates are needed. Whatever we produce will not be of the same quality as an actual NAICS based census. In industries experiencing rapid change, the quality may be particularly low.

Dr. Hogan said the Office of Management and Budget (OMB) has released the final plans for the North American Industrial Classification System (NAICS). He reviewed the agency's proposals for converting national-level aggregated statistics from the 1992 Economic Census to NAICS.

Dr. Pakes (AEA) commented that the plans described in the paper suggest that company mergers would cause the Bureau to be unable to link some of the establishments, despite the fact that the individual establishments would not lose their codes. Dr. Hogan said the agency will try to retain all the establishment identifiers involved in a merger to facilitate linking. Some establishments will still, no doubt, fail to link. Only the principal business of each is coded, and mergers could lead to the loss of some establishments because their specific principal activity was submerged in that of the rest of the firm.

In response to questions by Dr. Binder (ASA), Dr. Hogan said the Bureau will not know the percentage of 1992 establishments that will be matched to the 1997 NAICS until it tries to match them. It is predictable that the matching rate will vary between sectors. He added that one way to do the recoding would be establishment-by-establishment; i.e., the Bureau would go to the 1992 file, look at specific establishments, and recode accordingly. This would work best in the manufacturing sector. For sectors other than manufacturing, insufficient data were collected in 1992 to enable recoding, and the Bureau would have to assign NAICS codes by assuming that, for matched cases, the 1992 code would be the same as the 1997 code. For unmatched cases, the agency would have to try to impute NAICS codes within the Standard Industrial Classification (SIC) code, using both the SIC code and other factors (e.g., size of firm, payroll, etc.).

In reply to a question by Dr. Scherer (AEA), Dr. Hogan said that for the 1997 census establishments will be assigned both an SIC code and a NAICS code at the four-digit level.

Dr. Hogan said that the Bureau could use a different method for recoding at the aggregate level, using ratios from matched cases to allocate codes for unmatched cases. The agency would assume that unmatched cases would have the same distribution of primary activities as matched cases. The minimum of staff resources required—for either conversion method—were two person-years of programming, two person-years of methodologists, and six person-years of analysis. Total cost would be about $1 million.

In response to questions by Dr. Bell (ASA), Dr. Hogan said the Bureau's manufacturing specialists prefer the establishment-by-establishment method, and that where this method could be used it was the "cleanest" way to do the job. However, the earliest the agency expects to be able to release a product showing the 1992 census converted to NAICS would be some time in 2000 or later.

Dr. Dulberger (AEA) commented that it seemed easier to obtain the information needed for bridging 1997 and 1992 data from the respondents in the 1997 census. Dr. Hogan said that would be theoretically possible for matched cases, but not for the unmatched cases.

Mr. Mesenbourg said that the design and content of the 1997 census questionnaires have been "frozen" and are going to the printers. The Bureau will be mailing questionnaires to every establishment covered by the 1997 census, based on the SIC code for those establishments. The questionnaires include some additional items designed to collect detailed data needed to enable the Bureau to assign a NAICS code to each establishment. The agency plans to create a NAICS data base that will show the 1992 SIC code, the NAICS code, and the SIC "bridge" code that will point to the appropriate NAICS code. Regarding the problem of establishments being missed as a result of mergers, he noted that the Bureau will have the permanent plant number for each establishment (strongest in the manufactures sector) which should enable the agency to do a pretty good job of identifying establishments after a merger.

Dr. Tourangeau (ASA) commented that there seems to be a compromise necessary between getting enough information about an establishment for full reclassification of its activities in 1992, and identifying some variable that would be useful for imputation. The Bureau could use a tailored question to request selected information for classification purposes.

Dr. Pakes said the Census Bureau may wish to have some outside economists or statisticians review its proposed matching procedures before it commits itself to a methodology. He suggested the Center for Economic Research could look at the proposals.

In reply to a question by Dr. Pakes, Mr. Mesenbourg said he would not be surprised to have an "unmatched" rate of 25 to 30 percent, while Mr. Walker suggested the unmatched rate may run to 50 percent.

Mr. Mesenbourg said the Bureau's clear priority is the implementation of the NAICS. At some point the adoption of the new system will necessary cause a break in time series, but the agency believes relevance in the data is more important than the maintenance of all the time series.

Replying to a question by Dr. Berndt (AEA), Dr. Hogan said the best matching between NAICS and SIC classifications are for industries with little or no change over the period between the censuses. The weakest matching within an industry would be in rapidly evolving industries, such as software.

Dr. Binder commented that while data users will want to have comparable data for 1997 and 1992, he wondered whether they will still want it if they have to wait for it until 2000 or later.

Dr. Hogan acknowledged that the value of the data if release is delayed until 2000 is one of the Bureau's questions for members. Other points to address include—

- How will the data be used?

- What level of detail is needed?

- What are users willing to give up to have these data available?

- Would users be willing to help pay for producing these data?

Dr. Knickerbocker commented that the Bureau should have most of the information regarding the process and methodologies by the fall of 1998, and the Committee could revisit the subject at that time. On the other hand, if members have strong views now on the value of this proposal, the agency wants to hear them.

Mr. Garrett (ASA) commented that the two questions to be addressed about converting the 1992 census data to NAICS are how best to do it, and whether it should be done at all. With regard to the best method of converting the 1992 data, he pointed out that both the methods proposed—the establishment-by-establishment and the aggregate methods—involve imputation, with the primary different between them being the level at which imputation would be done. He suggested the first method (establishment-by-establishment) would be the best; it is simpler and would be at least as accurate as the aggregate method. The ability to use existing procedures is important, and he recommended making maximum use of individual codes at the establishment level.

There is a question the Bureau should even try to convert the 1992 census data. There will be some degree of 1992 to 1997 "trendibility" regardless of whether the 1992 data are converted, although the proposal would probably increase this to some degree. The conversion methods available all seem to work best in industries with the least change in classification systems between the censuses. Moreover, given the Bureau's priorities, any product from this proposal will be released until very late in the 1997 census cycle, and will be of questionable value because of the difficulty of accurate reclassification.

Mr. Garrett said he did not recommend retabulating the 1992 data under NAICS, but the Bureau will have to reconfigure its monthly estimates from 1992 to 1997 on a NAICS basis in some fashion for series that require seasonal adjustments. For that purpose, the aggregate method probably would work best, although he would not recommend publishing those estimates.

Dr. Binder said that Statistics Canada's major consideration with regard to "backcasting" data following the adoption of the NAICS is the needs of the national accounts. These needs have been found to be much less demanding than originally thought. Statistics Canada is using an aggregate method for its backcasting, although it has looked at several options for its subannual series. He agreed that the Census Bureau probably would find the establishment-by-establishment method better suited to converting the 1992 census data. He suggested the Bureau consult the office handling the national accounts about its needs for backcasted data.

Dr. Scherer said he is a heavy user of national economic data, and a change such as the conversion to NAICS can cause him a great deal of trouble. A change in the industrial classification system will cause problems when a user wants to compare 1992 and 1997 data. He suggested that publishing data on the old SIC basis for the new 1997 data would allow these comparisons. The other principal potential problem involves time series. Historically, the census data publications have included not only statistics from the current census, but data from one more preceding censuses as well. Presumably the 1997 data publications will have only 1997 and 1992 data, so there will be a break in at least some of the time series.

Mr. Mesenbourg commented that there will be some historical data available at the aggregate level. Ms. Ambler pointed out that showing time series for industrial sectors other than manufacturing will be very difficult.

Dr. Scherer said that the critical item needed is comparability over time at the four-digit industry level. Users need to know what would be the best link to the previous SIC code, and the contamination ratios (i.e., what establishments are included in a given industry that were not in the "best fit" industry in previous censuses). Ideally, the links would be based on value of products at the five-digit SIC level; if that is not available, the second best choice would be value of shipments at the SIC industry level.

In response to a question by Dr. Berndt, Mr. Mesenbourg said that after the NAICS is in place and the 1997 census has been completed the Census Bureau will be focusing on improving product and commodity classifications. This project will be done in collaboration with Statistics Canada and Mexico's Instituto Nacional de Estadistica, Geografia e Informatica (INEGI), with the objective of improving comparability among the three agencies, and comparability with the Harmonized System, for the 2002 Economic Census.

Dr. Pakes said he understood that part of the justification for adopting the NAICS was to improve comparability with Canada and Mexico; if so, doing the same thing for 1992 would be an advantage, but he was uncertain what value users might place on that capability. He added that he suspected the most likely users of the comparable data would be local governments, unions, the Department of Justice, and so on. If the Bureau is really going to match establishments based on SIC codes, the results might show some interesting patterns of industrial flow from SIC to SIC.

Dr. Gort (AEA) pointed out that while only two alternatives to imputation have been discussed, a third is automatically available, i.e., releasing information for matched establishments only, so users could apply their own imputation methods. Dr. Hogan said that, barring confidentiality problems, he saw no objection to releasing that sort of data. However, Mr. Mesenbourg pointed out that such statistics are not in the Bureau's current product line.

Dr. Binder commented that Statistics Canada will be backcasting for the national accounts back to 1993; all of the inputs required for the national accounts will be assigned a conversion factor, mostly using the aggregate method. Statistics Canada will be double-coding its business register until 1999 or 2000 so that both codes will be available through the 1999 census. The current business register is being double coded now.

Mr. Mesenbourg pointed out that the Census Bureau is working closely with the Bureau of Economic Analysis (BEA) on the adoption of the NAICS. The 1997 Economic Census is the earliest major operation that will be done using the NAICS, with the current manufacturing programs beginning with data year 1998 and the nonmanufacturing programs in 1999. The BEA is not formally committed to converting to the NAICS until 2002. The Bureau of Labor Statistics (BLS) will begin using the NAICS in 1998-1999, the Internal Revenue Service (IRS) in 1998.

Dr. Binder commented that the Canadian annual surveys (the closest analogies to the U.S. quinquennial census) will use NAICS in 1997, and the Canadian subannual surveys will begin using the new system in 1998.

Dr. Knickerbocker added that the United States, Mexico, and Canada have just begun trade reconciliation. If one is interested in the economic consequences of the North American Free Trade Area (NAFTA) agreement, clarifying the domestic consequences is only half the game; reconciling the trade data also has to be done.

Mr. Zeisset commented that the Census Bureau will be publishing a full "origin-destination" matrix in terms of classification by SIC and NAICS, so users will be able to see the components of the SIC and into which NAICS the individual components were transferred. This will not show transitions from one SIC to another. If the Bureau does not provide data on transfers and transition, users will try to do so themselves, using their own methodologies. He noted that when the transition to NAICS was discussed at the previous meeting, a member suggested the cleanest way to maintain time series would be to retain the additional detail for business classification being planned for 1997 for the 2002 census, which would enable the Bureau to reclassify the data on an

SIC basis. The advantage is that the method will be “clean”; the disadvantage is that it means classification will be done on the basis of a discarded system.

In reply to a question by Dr. Scherer, Mr. Mesenbourg said the coding by SIC for the 1997 census will be done by the Census Bureau’s staff.

Dr. Dulberger pointed out that one benefit of the NAICS is that it covers industries that are important, but that had been overlooked by the old SIC system. All industries are not created equal, and she was much more interested in new industries. In terms of priorities, it is more important to be able to make comparisons between 1992 and 1997 industry data on the 1997 basis.

Mr. Mesenbourg said the Bureau will show the 1997 census data on both NAICS and an SIC basis, but NAICS has the priority.

How Should the Census Bureau Communicate Plans for 2000 Census Products? (AMA, PAA)

Abstract. This paper outlines initial plans and a general approach to marketing and promoting 2000 Census products. Two separate objectives have been identified: the first is obtaining user input prior to developing final specifications for 2000 Census products; the second involves developing a marketing and promotion plan for the products once the census is taken. The paper identifies the specific market segments that the Census Bureau plans to reach and describes a general strategy for communicating with these groups. As additional details are added to the marketing plan over the next two years, these will be communicated in subsequent meetings to the committee for review and comment.

Ms. Becker (PAA) wondered why the Bureau felt the need to market Census 2000 data products. She believed people would line up to wait for the release of decennial census data. On the other hand, the Bureau does need to invite data-user input on Census 2000 product design and to develop a research plan to examine user response to the new Data Access and Dissemination System (DADS). While she felt she could learn to use the new system (but did not want to be required to pay for data that used to be available without charge to the user), other groups of users (such as library patrons, students, and members of the general public) may have more difficulty. The research should be done by a group outside the Bureau because agency staff do not know how outsiders use census data. One appropriate group would be the Association of Public Data Users. The data users that log onto the Bureau’s Internet site are not typical. She suggested the Bureau work with expert data users to plan a series of town meetings to garner input on product design. Since there was an extensive series of local public meetings prior to the 1980 and 1990 decennial censuses, she wondered whether the agency had reviewed the results of these meetings and about the availability of internal reports. Any issue papers on Census 2000 products the Bureau prepares as the basis for discussion at public meetings should be reviewed by outside users before they are used. She suggested the agency needed to extend the partnership concept to data delivery systems for data users. For example, since the Bureau has relatively little experience in preparing local reports, this would be one arena where partners would be useful. Since there will be fewer Bureau-produced printed reports, it will be particularly important for the agency to work with local organizations to help them create print products that can be placed in local libraries and sold for a small fee.

She emphasized the importance of informing data users that some census data will be available offline (on products such as CD-ROMs); users should not be required to go on line every time they need to aggregate data from a new group of census tracts. She also believed that the analytic software on the Bureau's CD-ROMs should be improved to allow for the aggregation of geographic units and possibly the creation of new variables. One option for this improved software would be the Mod-series software developed by DUALabs about 30 years ago.

She argued that products derived from traditional summary tape files 1 and 3 (containing 100-percent and sample data, respectively) and public-use micro samples should be provided to users without cost on the Internet. On the other hand, the Bureau should charge for special tabulations that require access to the basic files to create new geographic areas from census blocks and/or to create new variables not traditionally included with standard products.

She asked how the Bureau knew charging users for data would not inhibit the use of the system. While expert data users can be expected to learn to use the DADS system, the system may not be appropriate for most users.

Mr. Kavaliunas said that the Bureau agreed with much of what Ms. Becker had said. The primary products from Census 2000 will be standard tape files 1 and 3 or derivatives of those files. However, the Bureau believes that it will be necessary to market Census 2000 products because a lot of potential customers are not aware of the exact nature of the data the decennial census produces.

With regard to data-user input to Census 2000 product planning, Dr. Roberts (AMA) agreed with Ms. Becker's suggestion that the Bureau review those parts of the consultation process that had worked in 1980 and 1990 and those that had not. She added that the agency should think about ways of leveraging its existing customer base, for example through the use of customer satisfaction cards or by including a short questionnaire in the Bureau's newsletter. Both of these vehicles could provide customer feedback on the Bureau's plans for Census 2000 products at very low cost.

Turning to the question of additional ways of reaching user groups, she suggested that the Bureau consider adding some Census 2000 product questions to the registration process on the agency's Internet web site, placing a short Census 2000 product questionnaire on the site, and using electronic mail and Bureau publications to direct data users to the web site. She noted that the web site should be linked to all printed publications. She agreed that Internet users were probably a skewed group but thought the Bureau might be able to segment them in useful ways. Since the comments and experience of expert data users might be irrelevant to occasional data users, the agency should try to obtain advice on census product design from the latter as well as the former group.

She thought the Bureau should consider developing and promoting one primary Census 2000 message or theme for each major group of data users (e.g., Federal agencies, the general public, State and local governments, State data centers, libraries, etc.) as well as one or more secondary messages. For example, the primary theme for the general public before Census Day, should be to solicit cooperation and participation in the census. A secondary theme might be to stress the benefits of census participation. Post-census themes for the general public will probably be minimal and might consist of thanking people for cooperating with Census 2000.

With regard to segmenting data users, the weight the Bureau gives each segment will depend on a number of issues, such as the budget and timing of the message to be delivered. While the way the background paper segmented the various groups of data users was fine, she suggested an alternative approach that relied on the way customers actually use census products. She emphasized that business users were not a homogeneous grouping, that they varied significantly in the number and scope of Bureau products they use and in the extent to which they use those products.

Ms. Ashcraft (AMA) mentioned that in the past, the Bureau had suffered from the lack of a widely publicized slogan that would help data users associate the information they use with the agency that produces it. She was pleased to see that the Bureau has adopted "the official statistics" as a slogan and hoped that it would help create a public identity for the agency. Mr. Kavaliunas said that her suggestion that the Bureau needed a slogan was largely responsible for the agency's decision to adopt one. He added that the Bureau does plan to use the Internet to solicit user input on Census 2000 data products. The agency also expects to put its issue paper on Census 2000 products on the Internet and ask users to respond to the questions.

In response to Mr. Kavaliunas' concern about how to reach occasional data users, Ms. Becker noted that librarians often serve as intermediaries between the Bureau and beginning data users, and so do expert data users. Dr. Roberts added that the Internet made census data much more accessible to a growing number of potential data users. Many of those who would have gone to libraries in the past to obtain decennial census information will be able to access the data via the Internet. Dr. Klerman (PAA) added that while Internet use is broad now, it will be even more widespread in 4 years when Census 2000 data begin to be released. Ms. Becker replied that neither the New York City nor the Detroit planning departments have Internet access. She reminded her audience not to take Internet access for granted, that Internet use is slowly expanding among local governments and small businesses.

Dr. Stewart (AMA) reminded the audience that none of the data the Census Bureau provides is really "free" but that the cost is often hidden. The agency needs to remind people there is a cost somewhere, that these data are not "free."

Dr. Voss (PAA) agreed with Ms. Becker that the Bureau must supply data users with offline as well as online sources of data. By establishing the State data center system, the Bureau had significantly decentralized data delivery. The DADS system represents a recentralization of the data distribution process. He emphasized that the Bureau needs to provide data users with the ability to create data products outside the recentralized electronic system. Mr. Kavaliunas replied that the Bureau agreed on the importance of these offline sources of data but added that the offline products will contain fewer predefined tables than those in recent censuses. Ms. Becker said that the "GO" software currently provided on decennial electronic data products is quite useful but does not offer the capability to aggregate. The Bureau should enter into an iterative process with expert data users to help determine the right mix of data and geography to be included in Census 2000 data products.

Dr. Jacobsen (PAA) noted that the planning process needed to include documentation as well as data products and suggested that the Bureau ask users about documentation as well as table shells. Mr. Kavaliunas mentioned that the Bureau's aim is to have documentation online. Ms. Miller added that this was an important question because, contrary to many users' beliefs, it will be relatively easy to obtain 1990 census data from the DADS system but much harder to access 1980 and 1970 data. Dr. Passel (PAA) said it was very important for outside data users to help the

Bureau design and test its data products. Mr. Kavaliunas replied that the Bureau had held a series of directed focus group meetings with knowledgeable data-user groups prior to developing DADS and that some users also participated in beta testing. Dr. Passel urged that the Bureau plan to put standard data tables online. Mr. Kavaliunas replied that the big challenge will be to specify which tables should be online.

Dr. Klerman stated that some of these choices would disappear if the Bureau is not permitted to collect long-form data in Census 2000. Dr Stewart suggested that the Congress should be at the top of the list for the marketing campaign, that its members have to be informed about the implications of decisions such as forbidding the use of the long form in Census 2000. Ms. Miller said that the Bureau has prepared a binder explaining the justification for most proposed census questions and that this information will be forwarded to all members of Congress in the near future. The Bureau has already given copies to the chairs and ranking minority members of the Bureau's oversight subcommittee and committee in the House of Representatives.

What Improvements Can Be Made To New American Community Survey Introduction And Benchmarking Plans? (ASA, PAA)

Mr. Waite presented a paper he coauthored with Mr. Alexander titled "What Improvements Can Be Made To New American Community Survey Introduction And Benchmarking Plans?" (see background paper). He distributed a one-page handout (see appendix E) showing the contents of the slide show he used. Mr. Waite pointed out that the Bureau would no longer use the term "benchmark"; instead, it would be called "comparison plan." The comparison plan will compare the American Community Survey (ACS) with the Census 2000 long-form questionnaire data.

Continuous Measurement (CM) is a Census Bureau program that will revolutionize the federal statistical system. The original design for CM had a large up-front cost over the 1998-2002 time period. This cost was largely due to the need to run the ACS in parallel with the full Census 2000 long-form sample to provide a tract-by-tract comparison to meet the expressed needs of data users who want to see how the ACS data compare to traditional census long-form data for each census tract. To preserve the critical elements of CM in an extremely tight budget period, the Bureau has developed an alternative to the original CM proposal. This alternative drastically reduces and redesigns the sample that will participate in the ACS during the comparison years 1999-2001 and delays the national portion of the comparison sample by one year. Beginning in 2003, the Bureau will begin the full ACS at 3-percent sample, roughly 250,000 housing units per month.

The revised plan still permits a sound statistical comparison and preserves the main benefits of CM. It also provides the infrastructure for increased integration of data from federal household surveys. This plan reduces the sample used for the comparison from about 4.8 million addresses per year for 1999-2001 to 940,000 addresses per year in 2000-2002. Instead of spreading the entire sample evenly across the nation, as originally proposed, the sample will be divided into two parts. The first will consist of about 40 selected "comparison counties," where an annual sample totaling 240,000 addresses will be concentrated to collect information for statistical modeling. These counties will be in the sample starting in 1999. The second will be a nationwide sample of approximately 700,000 addresses per year beginning in 2000.

In 1998, the Bureau will continue data collection and data processing for most of the current counties. It will produce 1997 estimates for seven of these counties, and estimate changes between 1996 and 1997 for three of the four counties first introduced in 1996. In addition, the Bureau will collect data for two counties in South Carolina that overlap with counties in the 1998 Decennial Census Dress Rehearsal. This approach will allow the Bureau to investigate the effects on both the ACS and the census of having the two activities going on in the same place at the same time.

In 1999, the agency will increase the number of county sites in the sample to approximately 40. The comparison with Census 2000 is designed to collect several kinds of information necessary to understand the differences between 1999-2001 ACS and the Census 2000 long-form data. The comparison counties include the various situations in which these differences are expected to be prominent. They were selected to have at least one in each of 24 strata representing combinations of county population, difficulty of enumeration, and 1990-1995 population growth. The selection also attempted to balance areas by region of the country, and sought to find several sites representing different characteristics of interest, such as racial or ethnic groups, highly seasonal populations, migrant workers, American Indian reservations, improving or worsening economic conditions, and predominant occupation or industry type.

The purpose of the comparison counties is to give a good tract-by-tract comparison between the 1999-2001 ACS cumulated estimates and the Census 2000 long-form estimates, and to use these comparisons to identify both the causes of differences and "diagnostic variables" that tend to predict a certain kind of difference. The diagnostic variables could pertain to characteristics of individual households, characteristics of the census tract, or survey performance measures such as response rates. The model parameters will be estimated by comparing the 2000-2002 national sample data to the Census 2000 long-form data.

Based on the comparison, the Bureau will adjust the 2000 long-form estimates for all census tracts and places to look like what the ACS procedures would have yielded. For both sample and nonsample ACS tracts, there will be extensive modeling of characteristics, but for sample ACS tracts the adjustments will be based in part on the data from the tract. In addition to these largely model-based estimates for small areas, there will be direct sample-based estimates for states and large sub-state areas for the year 2000.

In addition to reducing the size of the initial ACS national sample from 4.8 million addresses per year to 700,000 per year, the new plan delays the introduction of the national sample from 1999 to 2000. The main reason for the delay is the need to have geocoded address lists for areas with "non-city-style" addresses—those not having "house number/street names." These areas cannot be updated and geocoded using the usual Master Address File (MAF) creation procedures based on U.S. Postal Service (USPS) Delivery Sequence Files. A direct listing operation will be conducted for these areas prior to Census 2000. After Census 2000, addresses in these areas will be updated and geocoded using a targeted operation conducted as part of the ACS field work.

The size of the year 2000 national sample will allow the Bureau to provide estimates for all states and for any geographic areas or population groups of 250,000 persons or more. From the national sample of 700,000 addresses, the agency will be able to deliver direct comparison information to show how data from the ACS compare with data from the Census 2000 long-form questionnaire for all states, large cities, and large substate areas. For smaller areas, such as small counties, small towns, or census tracts, the Bureau will use statistical modeling to give indirect information telling how the ACS would typically compare to the long-form data "for an area like this." The model-based comparison will use information from both the national sample and the comparison counties, rather than just from the sample from each small area.

Mr. Waite referred to the one-page handout listing the factors used in choosing the 40 comparison sites (see appendix E for a list of handouts). These factors may be responsible for a difference between the ACS estimates and the Census 2000 long-form data.

Mr. Waite presented three questions to the American Statistical Association and the Population Association of America members–

1. Is our new plan reasonable? If not, how could we improve it?

2. Is the basic modeling strategy the correct one?

3. How should we approach the modeling project?

Dr. Ghosh of the American Statistical Association subgroup thought the paper was very thorough. He fully agreed with the idea of ACS and thought it would be especially useful for the intercensal period. He noted that the Census 2000 sample would be about 16.67 percent of the population while the ACS sample would be 5 percent initially and then a 3-percent sample in later years as depicted in the paper. Thus, for a given year, the sampling error for the ACS would be much larger than for that of the decennial census, forcing the Bureau to do some averaging. There might be an assumption of some kind of independence when the averaging gets closer to the decennial census figures. There may develop a trend over the 3- or 5-year period in which averaging may cause underestimation of the standard error especially if there is a positive correlation.

Dr. Ghosh said that a bigger sample would be better, but he understood that for budgetary constraints the sample had to be smaller. He proposed that the Bureau produce a composite estimator for 2000; for the starting point, create a weighted estimate where the weights are roughly reciprocals of the variances, and keep on updating the weighted estimates over the subsequent years until there is another decennial census with a long-form questionnaire. The methodology, according to Dr. Ghosh, would be an empirical Bayes methodology, although he would prefer a hierarchical Bayes methodology. He believed that if the Census 2000 long-form questionnaire values were used in some form of prior with an unknown variance rather than assuming that it was equal to zero and then use some empirical Bayes mechanism to estimate this unknown variance, the agency could get a much more reliable estimator than otherwise. He noted that the use of averaging was nice only if things were homogeneous and remained stable over the years. Otherwise, there could be a potential problem. He pointed out that model checking, especially for small-area estimation, was very important and that the modeling should incorporate the time-series aspect. Overall, he thought the ACS was a welcome move, but it would be dangerous to regard it as a substitute for the decennial long-form questionnaire data.

Dr. Bell (ASA) announced that the PAA subgroup’s discussant for this paper was not at the meeting.

In response to Dr. Ghosh’s comments on creating a composite model, Mr. Waite noted that the Director did not plan to ask for money to collect long-form data after Census 2000. He added that the main purpose of using the two counties in South Carolina for the 1998 Dress Rehearsal was mainly operational. The Bureau has committed to an unduplication strategy to make sure that the ACS and Census 2000 long-form questionnaires do not go into the same households.

Dr. Ghosh's comment on developing a composite estimate and updating it throughout the decade reminded Dr. Alexander of what the Population Estimates staff does with census data. It traditionally starts with census data and updates them using administrative records. On the notion of using time-series approaches in the modeling and not so much in the comparison study in general, Dr. Alexander noted that the Bureau of Labor Statistics (BLS) was using time-series models, but the Census Bureau would not be using it right away. He believed that the agency would need to go beyond the homogeneity assumption for averaging; it would need to know what were the properties of the averages if there were no homogeneity. These are some of the issues that the Bureau has been discussing with a panel of data users (which includes Ms. Becker (PAA), Dr. Bell (ASA), and others). Dr. Alexander noted that the discussions are not so much about the statistical methodologies, but about how people would use these numbers and what properties of the estimates people would be interested in. Another approach that the data users panel is favoring is a more explicit use of time series methods.

Ms. Becker (PAA) felt strongly about choosing the 40 comparison sites. She believed it would serve as an important factor for data users who historically used long-form questionnaire data. Mr. Waite agreed. Dr. Alexander reiterated that the goal of the 40 comparison sites is to understand the variables and to derive estimates by census tracts.

Dr. Binder (ASA) said he did not have a problem with the nonrandom sample of the 40 comparison sites as long as the Bureau did not succumb to the pressure to come up with estimates based on this nonrandom sample. He remembered that, once in the past, the Bureau was looking at the differences in the unemployment rates from CATI (Computer-Assisted Telephone Interview) versus non-CATI interviews under similar circumstances where a number of regions were selected. The Bureau decided to estimate how the unemployment rate would change based on CATI dealing with a nonprobability sample and asking more questions than could be answered because there was no national sample. Dr. Binder pondered if, for the ACS, the Bureau would be under similar pressure to explain what the national implications would be based on those 40 sites.

Dr. Binder was concerned that the Bureau was not only doing a model-based indirect estimation, but also applying it to different periods of time, which could turn out to be a problem. Dr. Alexander said that Dr. Binder's assumption was basically correct, although the model was not being used for a totally different time period. The Bureau's model is for using 3 years of data, comparing 2000-2002 to the Census 2000 long-form questionnaire. Referring to Dr. Ghosh's suggestion on using a composite estimation, Dr. Binder believed that composite estimation would work only if both estimates were unbiased. He was not sure if the composite estimation would be the right approach for the Bureau. An alternative would be to take advantage of the Census 2000 data and use them as auxiliary data for estimation.

Dr. Alexander said the Bureau would pursue Drs. Binder's and Ghosh's suggestions. It already has begun investigating empirical-based models that would use Census 2000 data and administrative records data as the "x" variables and the ACS estimates as the "y" variables.

Dr. Bell noted that the list of factors in choosing the 40 comparison sites was rather long, and it would be difficult to have each of these factors in each of the 40 sites. In addition, when it comes to estimation, the Bureau would encounter variations within sites. He asked if the agency was making an effort to prioritize this list either in general or for specific variables.

Dr. Alexander said there were some prioritization–the counties were divided into 24 strata based on a high-, medium-, and low-growth population, hard or easy to enumerate areas, and region. For this, the Bureau used the targeting data base to divide all the counties in the United States into those strata, and then, judgmentally picked one county per stratum. Population growth or decline was given a high priority. He conceded that the prioritization process was not mathematical.

Mr. Waite noted that the Bureau had a fixed amount of resources to devote in this sort of benchmarking activities. The afford ability of the total sample size was a constraining factor. He added that, for operational reasons, the Bureau's MAF played a key role in the selection process.

Dr. Passel (PAA) asked how big were the selected counties and what was the total population of the 40 sites? He noted that, according to the paper presented, the sample used in the modeling was a rural sample. He asked if the Bureau was sampling only rural counties.

Dr. Alexander explained that, in the sample for modelling, the Bureau would use 100 percent of metropolitan areas and sample rural counties. The agency has not finalized the list of the 40 sites, and, therefore, the total population figure was not available yet. Mr. Waite said the plan was for a 5-percent sample in the selected counties. Dr. Alexander added that in Houston, TX, the sampling would be at a 3-percent rate. The Bureau is trying to keep an upper limit of 500,000 housing units on the sites.

Ms. Becker expressed her frustration about the Bureau's decision of not going to the subcounty level in choosing the 40 cities because of geocoding problems. She believed that local governments and local data users, such as herself, could help the Bureau solve those geocoding problems. Based on her 3 decades of interaction with the Bureau, Ms. Becker observed that if there were problems dealing with one part of the country, even though those problems could be solved, the Bureau abandoned programs from which the other parts of the country could benefit. She believed that it was important for the Bureau to go to the subcounty level since counties were not governmental units in all states.

Dr. Alexander said that it would be a good idea to review Ms. Becker's suggestion for the national sample. He emphasized that the model did represent different parts of the country.

Dr. Binder asked if the delay in the starting time for the 40 sites and the national sample was due to operational reasons.

Mr. Waite said that the main reason for the shift was budgetary reason. Dr. Alexander added that the other reason was that the MAF schedule was aimed at Census 2000, not the ACS. Therefore, to get a national sample using the MAF, especially for the rural areas, would be difficult to do by 1999.

Dr. Binder asked how the Bureau would assure that there would be no duplication between the ACS and Census 2000 samples. Mr. Waite explained that no addresses will be duplicated, but a mobile person could get into both samples.

Dr. Bell asked if the Bureau would update the address list used in the comparison plan in 1999. Mr. Waite said the frame would be continually updated from the USPS Delivery Sequence Files and from the byproducts of the ACS. Dr. Bell asked the Bureau to consider whether or not the updating of addresses for the decennial census causes any changes in those 40 sites.

Mr. Waite said the Bureau's Geography Division was trying for the best possible MAF for those 40 sites, but it was possible to locate some additional addresses as a byproduct of Census 2000. Dr. Alexander added that after Census 2000, the ACS would have to have its own operation for keeping the MAF up-to-date.

How Will Measuring the Information Sector Impact the Bureau's Programs? (AEA)

Abstract. The North American Industry Classification System (NAICS) represents the first major structural revision of the Standard Industrial Classification (SIC) system since its introduction in the 1930's. One change introduced by the NAICS is the creation of an information sector, a major classification group comprised of industries involved in creating, manipulating, or distributing intangible intellectual property, such as publishing, broadcasting, telecommunications, and motion picture production. This is significant because, for the first time ever, activities related to an intangible product are recognized as a distinct industry type.

The background paper explored the major challenges associated with measuring the information sector and their impact on the Census Bureau's data-collection programs. It begins with a description of NAICS and the information sector, then addresses issues related to converting Census Bureau's current surveys and censuses from the SIC system to NAICS. The industries covered by the information sector are undergoing rapid, dramatic changes in technology and government regulation. The paper discusses recent developments in this area and concludes with a variety of concerns and questions for general comment and discussion.

Dr. Dulberger advised that the Census Bureau should start with an analytical chart to gauge how well the data the agency proposes to capture might answer the questions the Bureau wants answered. She pointed out that new industries tend to integrate vertically at first and then to disintegrate vertically over time. She questioned how one might measure the output and dollar value of a given firm. She proposed beginning with the annual reports of many firms in a particular industry to learn how they describe what they do—

- What do they consider goodness?
- What do they measure?
- How do they talk about the industry in terms other than revenue—
    - The nature of their investment?
    - Their customers?
    - What the customers buy?
    - How the customers use what they buy?

She also recommended working with a forum of accounting professionals because these individuals help firms measure performance and influence corporate record keeping. She said that the Bureau has the ability to define the concepts it wants but faces limitations in getting performance information about a firm because the firm might not keep this information for its own purposes.

Dr. Dulberger said that the large number of small firms in the information sector presented a challenge for measurement purposes. On the other hand, she believed that firms in this group would use information technology and that their ability and willingness to use the Internet to report their information electronically might enable the Bureau to reduce its cost of data collection. She suggested that the agency could achieve a greater response rate and capture more information by asking for data that the firms record for their own use. She felt that the firms then could create an electronic hook to simplify the reporting burdens of actually filling out report forms and returning them to the Bureau. To alleviate the cost, she suggested starting the firms off with electronic reporting instead of making the transition later. Because the electronic delivery of the firms greatly extends their geographic reach and enables them to go outside geographic boundaries easily, she advised the agency to pay special attention to exports.

Dr. Dulberger felt that the Bureau would have difficulty measuring intellectual property without the assistance of accountants. She said that firms typically do not report processes, methodologies, and software as capital investment. Instead, they use the ideas of their people to structure designs.

Dr. Knickerbocker said that people doing energy analyses would go immediately to the common denominator British thermal unit (Btu). He believed that this Committee would find conventional revenue numbers of little use in getting to the root of their needs and asked whether the members knew of a comparable concept to the Btu in the Information industry.

Dr. Betancourt said that time plays a critical role in the information industry . He believed that time has three dimensions—duration, intensity, and timing. In the first example, he pointed out that the connection and availability of a telephone did not necessitate the measurement of time; one expects a certain amount of service for the whole duration. He felt that capturing the intensity, or the number of calls made on the telephone, would make interesting study. Because this industry also involves congestion and capacity problems, the timing of a call can have varying analyses, in particular, different rates applied at different times.

In his second explanation on the element of time, Dr. Betancourt said that capturing duration mattered in broadcasting because, unlike the telephone, its usefulness relies on the actual transmission of programs and messages. He found knowing the hours of operation a useful dimension of output and, consequently, an important measure of timing. He said that the relevancy of measuring intensity in broadcasting depended upon the information transmitted. For instance, in measuring the amount of data transmitted, intensity might matter; in advertising, it might not matter.

Dr. Pakes said that people also might want a clear definition of pricing and changes in the cost structure. He advised that the Bureau should keep labor costs separate from other costs.

Dr. Dulberger said that these industries face a problem of not knowing what happens in the mix of transactions. For example, during the course of a phone call, one might receive data, buy or sell something, talk or hear a recorded message, engage in a conference, or make any number of transactions.

On measuring output, Dr. Scherer suggested using a concept of “manned-with-hours.” He defined this to mean either transmitting or processing gigabits, depending on the type of business involved, for example, communication, record making, newspaper, or data processing. He said the Bureau also might want to know about technical progress in this sector and described two ways in which technology flows into the sector. He said that first it comes embodied in capital equipment from other industries. He recommended that the agency treat the establishments in this sector much like it does the establishments in the Annual Survey of Manufacturers. He suggested breaking down the investments data into at least four components: computing equipment, communications equipment, structures, and all other equipment.

Secondly, Dr. Scherer said that technology flows into this sector through internal development, partly research and development, and partly software. He said the agency should have internal efforts to advance technology and external flow of technology into the acquisition of plant and equipment.

Dr. Dulberger considered two issues relevant to this discussion. First, she said that, as the price of computers goes down, companies no longer will count the expense for them as investments, despite the importance of computers and software to business performance. She named the assumption of ownership of capital as the second important issue. She also would like for the Bureau to capture purchased services. For example, if an individual wishes to do processing that requires more power than available on his or her own machine, the person could get access to a more powerful system on a pay-by-transaction basis.

Based on the difficulty in measuring performance and output in the information sector, Dr. Berndt suggested using flexibility for a while. He also suggested that the Bureau should contact the Federal Communications Commission (FCC) for guidance in this area.

Ms. Bramblett said that the Bureau already has contacts within the FCC and has received help from the FCC in designing the 1997 Economic Census questionnaires. She solicited comments on the importance of the transportation, water, rail, and real estate and finance industries to the information sector in their priority for data collection.

Dr. Berndt said that the Bureau might measure the value of information that flows across countries. He used the sale of a Hollywood movie to a distributor abroad as an example of value he would like captured. Dr. Knickerbocker said that this would represent a case for technology and that the Census Bureau does not have the ability to attribute a value to the inherent intellectual content of a product. He said the agency will use the NAICS in the 1997 census and purports to begin by the end of 2000 to collect data for the information sector on an annual basis.

Ms. Bramblett asked about the importance of having subnational geographic data as opposed to having only aggregate data at the national level. Dr. Pakes associated importance to the radio and movie theaters but said anything else would depend on the industry at issue.

What Should the Census Bureau Charge for on the Internet and What Market Segments Should We Target? (AMA)

Abstract. In March 1997, the Census Bureau took a cautious step forward and launched CENSTATS, a for-fee data access service on the Internet. Given the nature of the Internet and market realities, the Bureau decided that much of the

data would remain available to all for free, but that it would charge for "enhanced access" to certain data bases. This paper describes the rationale behind the decision, progress to date, and current and proposed marketing initiatives for the committee's review and comment.

Dr. Stewart said that because the Bureau is restricted in its ability to charge customers for products, it needed to define carefully what it is selling. While information is at the core of the agency's product offerings, the key elements of the "value proposition" are—

- Convenience—the ability to get immediate access
- Customization—data the way the user wants to see them
- Complementarity—data that can be combined with other data
- Clarity—ease of use, comprehensibility of the data
- Timeliness—paying customers would get to see the data first

He offered these as dimensions of a delivery system for Census Bureau data that might create value. They are not characteristics of the information itself but of one possible delivery system for the information. Further thought about these components might yield ideas on both product design and pricing structure for the Internet offering. These dimensions might also provide a way of differentiating between paying and nonpaying subscribers.

With regard to value-added products that might be included in the subscription service, he suggested that market research on the needs of paying customers could prove very useful. There is a marked imbalance between free subscribers (around 3,000) and paying subscribers (42); research should focus on those willing to pay for Bureau products. He wondered if the Bureau's web site could provide links to the web sites of commercial data suppliers and charge the latter for the listing. He thought many data vendors would be interested and noted that the Bureau would need to determine how to price such a listing.

Turning to the issue of which market segments to target, he said that Federal and state government agencies and educational institutions would probably not be able, or willing, to pay very much for access to Census Bureau data. While the Bureau must make some data available to these groups, the information need not be precisely the same as that made available to paying customers. Using the value options suggested above, Bureau staff should begin to develop products for paying and nonpaying customers. The former may be much less willing to pay for information if there is little or no difference between the products available for free and those for which other data users must pay. While the educational market is limited, it might well provide the Bureau with promotional benefits as well as with a modicum of sales. The type of products geared to this market might be limited or constrained versions of those sold to customers more able to pay full price. Strict licensing would probably be needed to prevent educational institutions from entering the data reselling business. Within the commercial arena, he suggested distinguishing between end users and resellers. For the latter, the Bureau might want to investigate the possibility of royalty arrangements rather than the commonly used fee-for-use approach. In response to a comment from Mr. Kavaliunas, Dr. Stewart said he understood that the regulations governing these kinds of transactions might be very limiting. One approach might be to tie the reseller into the Bureau's web site. Among end users, many big businesses are already heavy users of census data and would probably be willing to pay reasonable fees to obtain the information they need. He believed small businesses represented an important growth market for census data. The Bureau may want to explore pricing strategies aimed at smaller firms that will probably not access the data as often as larger companies.

The Bureau has agreements with approximately 1,400 Federal depository libraries that allow their customers access to census data. Alternatives to this type of site license arrangement would include arrangements that control the number of computer terminals with access to census information at each library. A pricing algorithm based on the number of seats or computer terminals is common in the software industry. The value is associated not with access per se but with the number of users that can have access at any given time. Another option would be to introduce metering either of the information accessed or of elapsed time on the computer system. At some point, the Bureau will confront the problem of how to define a site. For example, does the Los Angeles Public Library constitute a single site, or many?

The Bureau might want to set up a promotional trial package of census data people could try at their convenience. After a certain amount of time, the customer would have to begin to pay for this service or lose it. This might be important in the small business arena. He felt that decennial census data products will not sell themselves and will need to be promoted. While a very small group of people understand the Bureau's products and use them frequently, most potential users are not aware the data exist and do not know how to use them. As the Bureau moves toward accepting credit cards, it might want to think about pricing access to some information on a one-time basis (versus subscribing to a publication or an online data set).

He encouraged the Bureau to think creatively about how to define "cost of dissemination," and suggested that cost accountants would be able to offer advice on reasonable ways of increasing the dissemination costs that can be recovered from customers.

Referring to the promotion of Bureau products, Ms. Ashcraft urged the agency to be certain that Internet search engines can find census data through the use of key words and to assure as many links to other relevant sites as possible. Ms. Fisher suggested that the Bureau try to price one- or two-time access to particular databases in a way that would encourage potential occasional users to consider buying a subscription. Mr. Kavaliunas replied that the Bureau had considered one- and two-time access and found the cost accounting for this service very daunting.

In response to a question from Mr. Garland about the pricing of Bureau subscriptions, Dr. Stewart said he thought the price was too low. The Bureau offers good products; the data have a high degree of integrity; and access to them is easy via the Internet. Dr. Roberts added that most things on the Internet are not free. Mr. Garland pointed out that the Bureau has already received negative mail criticizing it for charging any fee at all for information posted on the agency's web site. Among some segments of the public, there may be some resistance to paying for census information on the Internet. Also, Bureau data do not enjoy copyright protection. Mr. Kavaliunas explained that the Bureau is walking a very fine line between perceptions that tax dollars paid for census information and that information on the Internet is free, on the one hand, and the mandate that the Bureau recover the cost of disseminating statistical data, on the other.

Dr. Stewart agreed that the Bureau should begin cautiously, because if the data are priced too low, the agency's web site may be overwhelmed. Ms. Jocz agreed that product differentiation by cost made sense. Data in standard format could be made available for free, while users would have to pay for customized formats or tables. Mr. Kavaliunas said that the new data dissemination system will make this possible in about 3 years. Dr. Stewart suggested that the Bureau could print different messages at the bottom of table images indicating the source of the data and whether they were standard or customized.

What Opportunities for Cooperative Research and Development Agreements Should the Census Bureau Pursue? (AMA)

Abstract. In November 1996, the Marketing Services Office was officially designated as a Federal reinvention laboratory, thereby enhancing the Census Bureau's ability to enter into Cooperative Research and Development Agreements (CRADAs) with private companies for the purposes of developing and marketing new products. Two CRADAs have been signed; others are in various stages of negotiation. This paper outlines the cooperative research and development agreement process at the Census Bureau and highlights activities to date. Several questions on future directions and initiatives are presented for the committee's comments and suggestions.

Ms. Jocz was struck by the variety of goals that cooperative research and development agreements (CRADAs) can seek. The Bureau's initial goals include—

- Developing new products
- Marketing new products
- Increasing agency revenues

The goals of the two agreements the Bureau has already concluded include cost savings and improved data handling and efficiency. She suggested the agency could explore several other goals using partnerships or CRADAs—

- Process improvements, such as economies of scale or joint production
- Product improvement or development, involving the creation of new products by combining existing data sets or combining data with analytic capabilities
- Access to markets for existing census products or new products
- Opportunities for organizational learning

With regard to the selection of partners, she recommended that the Bureau attempt to establish CRADAs with organizations that share—

- Some congruence of goals with those of the Bureau
- Cultural characteristics
- Commitment to a particular project

Any agreement between the Bureau and a CRADA partner should specify—

- The value being created
- The expertise each partner will contribute
- Which partner will maintain control over how the expertise is used
- The distribution of the fruits of the partnership

Partnerships involve a substantial amount of commitment on the part of the constituent organizations, especially at the outset. The partners also need to agree on the areas not covered by the agreement. For example, the Bureau is committed to maintaining the confidentiality of the information it receives from respondents.

Turning to the issue of potential partners or products the Bureau might want to consider, she said the list of products included in the background paper was excellent. These included—

- Combining two or more existing Census Bureau data sets
- Combining privately developed software and/or data sets and Census Bureau data sets
- Combining Census Bureau data sets and those of other Federal agencies

The Bureau should take care to develop products that are clearly differentiated in the market place and are not the result of slight modifications of existing products. She suggested the Bureau focus on high quality organizations as potential CRADA partners, such as resellers of census data and commercial data suppliers. With regard to handling sensitive data, one possibility would be to explore partnerships with university-based survey research centers, while another option might be to contract with individual researchers who could sign confidentiality agreements.

Among the possibilities for outreach to other organizations, the Bureau should investigate advertising in the newsletters of associations such as the Institute for Operations Research and Management Science or the Council of American Survey Research Organizations. Mr. Kavaliunas replied that there were already other mechanisms in place for working with the survey research community on joint projects. The purpose of forming CRADA's is to increase revenue to the Bureau. Ms. Jocz commented that the Bureau might employ a two-stage process in which the first stage might involve doing some methodological development work with university researchers, to be followed by a commercialization stage. Ms. Ashcraft pointed out that several years ago, the Bureau perceived data resellers as competitors. In the intervening years, a significant change has occurred, and now the agency views them as potential partners. She felt this was a very positive development for both the Census Bureau and the private sector. Dr. Roberts and Ms. Fisher added that universities were under as much pressure as the Federal government to develop and commercialize products.

Dr. Stewart suggested the Bureau consider forming partnerships with some of its suppliers as test sites for particular applications. For companies that make printers, for example, the Census Bureau represents a unique set of applications. The approach he favored was for the Bureau to emphasize that it is engaged in some advanced printing operations (e.g., form and survey instrument design) that will probably filter into other commercial operations. The Bureau might be able to form a relationship with a printer manufacturer that would involve the agency's becoming a research and development applications site in return for the use of (and possibly participation in the design of) cutting edge printer technology.

What are the Issues in Implementing the Survey of Program Dynamics (SPD)? (ASA, PAA)

Abstract. P.L. 104-193, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) eliminated the Aid to Families with Dependent Children program. Part of that law directed the Census Bureau to "continue to collect data on the 1992 and 1993 panels of the Survey of Income and Program Participation [SIPP] as necessary to obtain such information as will enable interested persons to evaluate the impact of the amendments made by Title I of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 on a random national sample of recipients of assistance under State programs funded under this part and (as appropriate) other low income families, and in doing so, shall pay particular attention to the issues of out-of-wedlock birth, welfare dependency, the beginning and end of welfare spells, and shall obtain information about the status of children participating in such panels."

To carry out that directive, we are planning a Survey of Program Dynamics (SPD) to simultaneously measure important features of (1) the full range of welfare programs, including both programs that are being reformed and those that are unchanged, and (2) the full range of other important social, economic, demographic and family changes that will facilitate or limit the effectiveness of the reforms. Current plans are for data to be collected for each of the six years from 1996 through 2001, providing panel data for ten years (1992-2001) when combined with the 1992 SIPP data.

The survey has been designed with three fundamental sections--(1) the "bridge" survey which will provide the link between the 1992 and 1993 panels of the SIPP and SPD (using the March 1997 Current Population Survey instrument); (2) the 1998 SPD which will collect annual retrospective data starting in 1998; and (3) the 1999 SPD Child Well-Being Module to be administered starting in 1999, though its content may vary from year to year.

There are three issues on which we would like advice from the Committee--criteria for subsampling, approaches to weighting, and the character of the microdata files to be produced from the program.

Ms. Johnson presented a paper she coauthored with Dr. Weinberg and the SPD team titled "What are the Issues in Implementing the Survey of Program Dynamics?" Public Law (P.L.) 104-193, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), eliminated the Aid to Families with Dependent Children program. Part of the law directed the Census Bureau to "continue to collect data on the 1992 and 1993 panels of the Survey of Income and Program Participation (SIPP) as necessary to obtain such information as will enable interested persons to evaluate the impact of the amendments made by Title I of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 on a random national sample of recipients of assistance under state programs funded under this part and (as appropriate) other low-income families. In doing so, Census shall pay particular attention to the issues of out-of-wedlock birth, welfare dependency, the beginning and end of welfare spells, and shall obtain information about the status of children participating in such panels."

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Ms. Johnson gave a status report on each of the three phases of the SPD. On April 25, 1997, the Bureau began personal interviews and, as of May 1, had interviewed approximately 300 households out of the 35,000 included in the sample. For this 1997 "bridge" survey, the agency is using a computer-assisted personal interview (CAPI) instrument that has been modified from the March 1997 CPS, and data from this survey will be available in early 1998 through the Census Bureau's FERRET (Federal Electronic Research and Review Extraction Tool).

For the 1998 SPD, the Bureau is developing a CAPI instrument along with a Self-Administered Adolescent Questionnaire. Field operations for this survey are scheduled for April to June, 1998. The sample size is expected to be approximately 20,000 households. The pretest, which will be held in September 1997, will contain 500 households from retired CPS samples for five Census regional office areas.

The 1999 through 2001 SPD surveys will have annual field operations from April to June; the sample size is yet to be determined. The Bureau again will use the core CAPI instrument along with topical modules–the first being the one on Child Well-Being. The plan is to use clinically-tested assessment tools. The Bureau is also planning to develop other modules (e.g., immigrant status, language minorities, etc.) for future years.

Ms. Johnson said the Bureau would like to have advice from the Committee on the following issues for the SPD:

1. Subsampling. Ms. Johnson noted that the Bureau could not interview all households in the 1992 and 1993 SIPP panels in 1998. It needs help to determine which groups should be over-sampled, following the welfare reform law as a guide. The Bureau will need to see the results of the 1997 bridge survey before deciding the final sampling strategy.

2. Weighting. There are several options under consideration. One is to have a longitudinal file weighted to represent the April 1993 population (the basis for the SIPP weights). Another consideration is whether to have a cross-sectional file weighted to the interviewed population representing the April 1997 U. S. population. Differential attrition of the low-income population is a serious concern in developing appropriate weights.

3. Microdata Files. It will be very difficult for data users to figure out how to use data from three separate surveys (i.e., SIPP, CPS, and SPD). The microdata from the 1992 and 1993 SIPP data are already available. In the Fall of 1997, the Bureau is planning to create a

"CPS look-alike" (for data users' convenience) data set from the 1997 bridge survey. The Bureau still faces the challenge on how to link the 1997 bridge SPD back to 1992 and 1993 SIPP.

Ms. Johnson presented three questions (see background paper) to the American Statistical Association and Population Association of America members for discussion.

Dr. Juster (ASA) congratulated the Bureau for getting this survey started. He thought it would be nice to find out what happened as a result of this law. The SPD selects some households which were on welfare in 1992 and 1993, uses them as benchmark, and then finds out what happens to them over time. It also would be interesting to find out what happens to people who were not on welfare in 1992 or 1993, but went on welfare after the introduction of the new law. He suggested that the Bureau take a sample (from the 1992 and 1993 SIPP households) which is inversely related to income. Dr. Juster noted that a possible option would be to do a screener by asking "when we last talked to you, your household income was reported to be "x" amount; has it changed much since then?" If the answer is no, the Bureau should not be interested in them because these households are not eligible from the point of view of poverty and the dynamics of being in and out of welfare programs.

Dr. Juster said the new welfare program was presumably a function, to some degree, of state behavior (i.e., how different states are deciding to administer the new welfare program). In that context, the Bureau could categorize the states as generous, restrictive, and so on, based on differential state programs. He believed that the Bureau ought to seriously think about sampling according to the differences among the states.

On weighting, Dr. Juster pondered if the Bureau should release a microdata file, which has the 1992 and 1993 SIPP households and 1997 bridge survey data, but the agency does not provide much guidance in the form of differential attrition. In his opinion, this would be an invitation to disaster. He would rather have the Bureau produce a longitudinal file, which is corrected for known differences in attrition related to poverty rate and other variables of interest. On the longitudinal weights relating to 1993 SIPP files, Dr. Juster asked if there was a provision in the way that SIPP is done to include newly formed households. Ms. Johnson said yes. Dr. Juster's final comment was on measuring how well off people are in economic terms. He believed that there were evidence to suggest that income was underestimated for people who were low-income and eligible for poverty programs because program participation is a function of measured income and people have incentives to hide their actual income. In the new welfare program, people will be scrutinized more carefully and will have less opportunity to hide. It was unclear to him what the Bureau did about this problem. One possible solution to the problem would be to measure well-being in the 1998 SPD using consumption, not income. Dr. Juster suggested that the Bureau consider the feasibility of using the consumption measure because income would not be a very reliable item to measure change over time for this subpopulation.

Dr. Passel (PAA) noted that the change in the welfare law imposed a rather daunting task to the Bureau, and he predicted some serious problems for SIPP data users. He noted that it was important for the Bureau to formally convene with SIPP data users and make decisions for changes. He was not sure why the Bureau chose to use the CPS instrument instead of the SIPP instrument when SPD data would be compared with SIPP data and the SPD files will be SIPP-like files. On sampling, Dr. Passel agreed with Dr. Juster and reiterated that it was important to include an oversample of households that would be affected by the new welfare law. Dr. Passel noted that the noncitizens would be most hit by welfare reform, and, therefore, it was particularly important to consider the legal status of the noncitizens as soon as possible. He said the decennial census data on citizenship were not very good, but the CPS data were better. He was concerned that the paper presented at this meeting did not mention the immigrant/noncitizen issue, and it also did not consider the difference in eligibility status of the existing noncitizens and the new immigrants who would enter the United States after the new welfare law took effect. In reference to weighting, Dr. Passel believed that the Bureau was better equipped to deal with the issues than most data users, but he observed a serious problem with the sample. He suggested that the agency consider a more formal process of meeting with some of the highly knowledgeable data users who have been using these data for a long time and have them make some suggestions.

Dr. Weinberg agreed that there was a need to keep program participants in the sample. He was intrigued by the suggestion of selecting households with an inverse relation to income and would consider that as a possibility. He wondered if data users would be happy with a sample based on an income cutoff. There are models that the Bureau could use or develop its own that can predict the probability of participation in welfare from household characteristics. Dr. Weinberg asked the subgroup members for their reactions on using such models for sampling. Dr. Weinberg noted that the Bureau had a contract with the Institute of Research on Poverty in Wisconsin to collect exactly the type of data that Dr. Juster suggested on welfare program characteristics. The Bureau considered the state category more as an independent variable in regression as opposed to using it for selection of samples. He added that it would be difficult for a Federal agency to tell the states that some of them were being left out of the sampling because of their differential welfare programs.

Dr. Weinberg appreciated the Committee members' confidence in the Bureau's experience in weighting. However, there still remains the problem that there is differentially higher attrition of the low-income population. The Bureau has tried its best to correct this problem in the SIPP files and will continue to do so in the future. He assured the two subgroups that the Bureau would not release an unweighted file; however, it could consider a cross-section file weighted to the April 1997 population. The key would be to release a file with longitudinal weight. Dr. Weinberg agreed that income was under reported, but did not agree with Dr. Juster's suggestion to measure consumption. Dr. Weinberg believed that the key to understanding the effects of welfare reform was to have a before and after measure; going for a full-fledged consumption measure would be flawed. He thought Dr. Passel's suggestion of a formal meeting with microdata users for advice was a good one, and the Bureau has already started the process. A special committee of the ASA advises the Census Bureau on the SIPP, and it has agreed to advise on the SPD as well.

Dr. Lillard of the American Economic Association (AEA) subgroup suggested that the Bureau develop a sample selection process that would be relatively simple and easy to understand. An important first link will be a baseline from which people can study nonparticipation as a first step in attrition. Thereafter, the attrition and weighting problems would be made very difficult by household residents' dynamics (e.g., children moving in with grandparents, etc.). Dr. Lillard was not sure if the Bureau was planning to follow each household listed in the 1992 and 1993 SIPP, but he would vote against using probability of poverty in selecting households. He believed that there would be a great deal of interest in the research community in the attrition and the dynamics of households.

Ms. Johnson noted that the Bureau plans to follow movers in the SPD; it has procedures in place that will allow the agency to follow every original SIPP (first-wave) person. If a household splits, any individual that was a part of that unit was tracked through any multiple moves. She said that the procedure was limited due to the use of CPS instrument, but the agency developed a questionnaire that would help tracking in the split households.

Dr. Juster said that the 1998 SPD would be looking at calendar year 1997. The states have not decided yet what they would be doing about the new welfare reform law. Therefore, the current year (1997), which is a transition period, will not be a bad representation of pre-welfare reform. He believed the Bureau would get closer to a baseline (i.e., by measuring 1997) than it thinks; it would have a pseudo-baseline.

Dr. Weinberg said that he did not reject the use of consumption as the base. He mentioned that the National Academy of Sciences has recommended that the Bureau seriously consider using consumption, as opposed to income, as the basis for measuring poverty. His main concern was the time-line to proceed with a new methodology. However, Dr. Weinberg will pursue Dr. Juster's suggestion by trying to add a short sequence to the 1998 SPD questionnaire or by modifying the 1999 SPD.

Dr. Binder (ASA) asked Dr. Weinberg to address the issue of subsampling–whether or not the Bureau would be using the differential sampling fractions and what the objectives were. Dr. Binder thought that the notion of sampling according to whether or not the person was likely to move into poverty was an excellent one, and it would increase the reliability. To come up with the best sampling plan, the Census Bureau needs to come up with the answers to questions such as– "what should it be trying to predict the probability of?" "Is it transition into or out of the program?" "Is it the characteristics of those who are on welfare?" Dr. Binder believed that the sampling fractions should be based on the Bureau's objectives, and the objectives should be based on a model-based predicted probabilities of whatever it is that the agency is trying to measure.

In terms of weighting, Dr. Binder did not know why weighting was such a major issue. He recognized that weighting for a longitudinal survey with attrition was a difficult problem, but he was not sure why it should be a specific problem for SPD and not for other longitudinal surveys.

Dr. Weinberg said the Bureau's working assumption is to weight the sample to the April 1993 population. The main problem is the pressure of releasing data in a timely manner. To meet the demand for timely data, the Bureau could use the March 1997 CPS processing techniques for the SPD and release SPD data in early 1998. The problem with that time line is that the Bureau will have to use an SPD sample which will not be representative of the April 1997 U.S. population. On sample supplementation, Dr. Weinberg asked if it was worth keeping fewer of the SIPP households in the 1998 SPD and adding more from those households that would be leaving the March 1997 CPS.

Dr. Tourangeau said if the attrition rate was 25 to 35 percent, the big concern would be the bias issue. In that case, the use of CPS households as a supplement would be a real attractive idea if the Bureau was concerned about the extreme adjusting factors of the weighting issue.

Dr. Weinberg explained how big the problem was: The February 1993 SIPP sample had about 75 percent of the households left at the end of the survey. There has been a substantial research on whether attrition affects the outcome variables measured, and the answer was almost never. The exception is in measuring poverty.

Dr. Klerman (PAA) wanted to talk about the substance rather than the statistical issues. Aside from the fact that the Congress asked the Census Bureau to do the SPD survey and provided funding, he asked, "what was the incremental contribution of this survey?" "How can people best use this survey to advance the global perspective?" He asked under what circumstances the Bureau would advise him to use this survey, and for what purpose, instead of using the CPS or SIPP? Dr. Klerman said SIPP has dynamics, but the SPD is fatally flawed for dynamics because there is a big hole for up to 2 years when no data were collected for this survey. He believed that the money available for this survey could be put in for something else.

Dr. Weinberg explained that there would be no hole as mentioned by Dr. Klerman. He described the SPD survey collection procedure as follows: The 1992 SIPP panel was in the field covering calendar years 1992 through 1994; the 1993 SIPP panel was in the field from 1993 through 1995; and the SPD bridge survey is in the field now (1997) and will collect data for 1996. For the 1992 SIPP households that were not surveyed in 1995, the Bureau would impute data using additional questions on the SPD bridge.

Dr. Klerman did not think that would work because of "seam bias." He noted that the seam bias problem is huge. Dr. Weinberg said the SPD will still provide good annual dynamics for data users. Dr. Klerman reiterated that, in the end, the Bureau could not answer the methodological question until it can explain what the marginal contribution of this survey would be over the other surveys.

Ms. Becker (PAA) noted that, for public policy making and for public data use, the CPS data appeal to her more than the SPD.

Dr. Lillard thought the paper was exciting.

Dr. Passel thought it would be a big mistake to weight the SPD data to the April 1997 population when it is not representative of that population. He added that there have been a number of problems lately with the Census Bureau weights, and, therefore, the agency should minimize the extent of putting out data that it knows to be incorrect.

Dr. Weinberg noted that SIPP data were still of tremendous value for policy analysts regardless of differential attrition. Ms. Becker pointed out that SIPP households were followed at 4-month intervals, not at a 3-year interval as planned for the SPD.

Dr. Juster thought it would be a bad idea to release a cross-sectional bridge until the Bureau can weight it properly.

What Have We Learned From the Medical Expenditure Panel Survey-Insurance Component Pilot? (AEA)

Abstract. The Census Bureau is conducting the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) for the Agency for Health Care Policy and Research of the Department of Health and Human Services (DHHS). The MEPS-IC covers a statistical sample of approximately 40,000 units, including business establishments, agricultural employers, government entities, and self-employed individuals. The Census Bureau will collect information on health insurance and business characteristics.

> In addition to the statistical sample, the MEPS-IC will canvass 8,000 to 10,000 health insurance providers (business establishments, government entities, insurance carriers, and unions) identified by a panel of employees who were included in a household survey conducted in 1996. Census Bureau will ask these household-identified cases, in addition to the insurance and business data, a few questions about the individual employee's health coverage. The Bureau will create a micro data set from the MEPS-IC results, which DHHS will use for modeling and forecasting and to produce estimates for the National Health Accounts.
>
> Census Bureau is completing a pair of pilot studies that evaluated survey techniques, methodology, content, operations, and special situations, such as collecting data for complex multi establishment enterprises. The agency will begin the full survey in the summer of 1997. The paper described the lessons learned in the pilot operations and the inherent difficulties in designing a nontraditional survey such as the MEPS-IC.

Dr. Berndt commended the Census Bureau for undertaking a project covering the nonhealth aspects of companies on a much wider range than the Fortune 500 Companies that many private-sector health organizations cover. On reporting biases, he felt uneasy about the MEPS Questionnaire Item E4, requesting a company's length of existence. Because he suspected that mergers and other changes affecting a company could make this type of question meaningless, contributing to a low response rate, he suggested either changing the wording to include given ranges of years or dropping the question entirely and replacing it with one that would add more health detail.

The issue of deductibles and copays struck Dr. Berndt as complex. For example, he said that prescription drug treatments can differ for copays and hospital stays, just as mental-health units differ from mental-health copays. He wondered how far the Bureau planned to go in this regard.

Dr. Cooper described MEPS as a combination of two surveys that provide different health information; one, a random sample of establishments; the other, a sample of establishments obtained from a household survey. He said the Bureau has given a lot of thought to the issue of deductibles and copays and has found a surprisingly gray line between the two concepts. He agreed that complex health insurance issues made getting responses difficult, especially from small employers that do not link to households. He said that the agency has begun collecting health insurance booklets from establishments, with the intention of extracting copay and deductible data that, hopefully, will help with questions of the hedonic pricing of insurance. In light of the growing number of mental-health, cancer, and various types of carve-outs, he realized that the Census Bureau will have to handle carve-outs well and felt that the booklets will provide the information to do that. He did not know the source of the question on the tenure of companies.

Mr. Govoni said that the Census Bureau hopes to use a sample questionnaire to make estimates about which establishments offer what insurance plans in 40 states. He said also that the agency will collect more detail from a subset of the establishments.

Dr. Cooper assured the Committee members that the Bureau hears and pays attention to their concerns about the importance of deductibles and copays. He said that employers often do not know the specifics about their insurance plans but that they could provide valuable information about their own and their employees' share of employees' premiums. He expected the household sample to reveal information about these employers.

In response to Dr. Berndt's question on timing, Dr. Sommers said that the agency will start collecting data in August 1997 and plans to make the list-sample files available by mid-1998; information from the household-sample cases should follow several months later.

Dr. Cooper believed that this link-flat file would be easier to use than the hierarchical databases used in 1987. He said that Census representatives went into the field from March through July of 1996 to collect information for the household tape and released the Round 1 tape in March 1997.

Dr. Dulberger asked the reason the Bureau decided to do establishments rather than enterprises. Dr. Cooper said the agency planned to go first to the establishments; if it could not get the desired information there, it then would go up the chain. He purported that insurers would customize their plans for larger employers. Mr. Hanczaryk said the MEPS information would enable the Bureau to assess what health-insurance coverage each establishment within a given state carries.

Assessment of Integrated Response and Product Marketing Plan for the 1997 Economic Census (AMA)

Mr. Wallace discussed his paper concerning the integration of the Bureau's marketing programs which target both the response rate and product use of the 1997 Economic Census. Because of downsizing, an increasing paperwork burden and businesses' changing attitudes toward Government, the Bureau expects the trend of declining response rates for economic censuses and surveys to continue. This expectation was reinforced by comments made by business participants in focus groups the Bureau recently conducted in five cities around the country.

Mr. Wallace showed a 9-minute film, "Recall of the 1992 Economic Census," highlighting suggestions and observations of these focus groups' participants. Feedback from these participants, and other sources, indicates that respondents are extremely unaware of any benefits to business or society from the economic census. Clearly, the communication of these benefits should be an integral part of the Bureau's response and product marketing strategies alike. Taking a holistic approach to response and data-product marketing will result in a focused, consistent message throughout the 1997 Economic Census. This approach will strengthen response and product marketing individually as well as enhance marketing efforts during the collection and dissemination phases of the census.

Mr. Wallace also mentioned that the Bureau might be able to secure the services of Alan Greenspan, Chairman, Federal Reserve Board, as a spokesperson for the 1997 census.

Ms. Ashcraft said an integrated marketing message for both products and response makes good sense. Given the widespread mistrust of the Federal Government by the general public and business community alike, communicating how the 1997 census benefits the individual respondent should be much more effective than appeals to one's civic duty or the establishment's legal requirements. Alan Greenspan would be an excellent spokesperson for the economic census, but individual small business owners also are needed to communicate the Bureau's "benefits" message. Also, if the Bureau plans to use an ad agency to enhance response, the same message should be applicable for marketing its products. For response marketing, the Bureau should make use of the Internet to convey its message. It also should target select groups, such as accountants, as it did for the 1992 census. For product marketing, again, the Bureau should make use of the Internet, perhaps as a means to illustrate case studies of census use.

Mr. Wallace asked how the Bureau should prioritize its marketing options, given its limited resources. Ms. Ashcraft said that first priority should go to the ad agency. Dr. Roberts pointed out that the one focus group participant in the film who said he used economic census data was in his company's marketing office. Perhaps the Bureau should direct its questionnaire delivery to the marketing departments. Ms. Jocz said response marketing should be directed to the person filling out the questionnaire.

Mr. Wallace said there was usually one person in each of the focus groups who claimed to be a user of economic census data, which was an improvement over the 1992 focus groups, most of which did not have any data users. He also asked which of the media the Bureau should give top priority for disseminating its marketing message. Ms. Ashcraft said the ad agency should develop a priority list as part of its media plan. Ms. Jocz suggested Inc. Magazine.

Dr. Stewart said most of the compliance problems would occur with small businesses, so the Bureau should target publications, especially local periodicals, that are directed toward small businesses. The Bureau also should consider doing an industry analysis to see if it could determine which are the problem sectors regarding compliance. Mr. Zeisset said the Bureau had tried organizing its focus groups for the 1992 census according to industry groups, but that none of these groups had stood out as more problematic than the others.

Mr. Wallace described the 1997 census as a "difficult sell." Small business owners, as well as the public, do not recognize how it benefits them directly. Stressing the importance of this census as a benchmark for the national economy will not motivate many respondents to complete and return their questionnaires. The Bureau recognizes the need to reach out to the small business community, which an integrated response and products marketing strategy should help facilitate. What are the techniques and stratagems, however, that would best serve this end?

Ms. Ashcraft said since many individuals unknowingly make use of economic census data obtained through secondary sources, the Bureau should consider an "Intel Inside" strategy with major firms and organizations, such as the National Restaurant Association, that use its data. Ms. Semans added that case studies and testimonials from these organizations would be beneficial as well. Mr. Wallace mentioned that the president of the National Restaurant Association has agreed to lend his support to promotional efforts for the 1997 census.

Mr. Wallace added that the 1997 Economic Census itself was at stake, given the prevailing budgetary constraints being imposed by Congress. One reason was the general lack of awareness by the public about any of the benefits derived from the economic census. Constituents were not voicing their concerns to their congresspersons that the 1997 census was at risk. Dr. Stewart said the present Congress was more responsive to small business concerns than to most other special interests. Unfortunately, this community would not be won over by the need for national information infrastructures, so the Bureau's marketing message should focus on the specific needs of these businesses. Perhaps, to identify these needs, the Bureau should raise the question: "What would happen if all the economic census data disappeared?"

Mr. Wallace said that the economic census nearly had disappeared in 1953 during the Eisenhower administration, which actually had proposed its elimination. However, the Watkins Commission was established to determine if and how the economic census could be abolished. After 6 months, funding for this census was restored, but the entire episode was an experience the Bureau did not wish to repeat.

Dr. Roberts suggested that the Bureau should attempt to get its message to the small businesses themselves, as well as their national associations. A good way to reach these business persons would be through the business-specific programs that appeared on networks such as CNN and CNBC. Ms. Fischer said that small business owners would be extremely appreciative of anything that would help them obtain funding from lending institutions. If economic census data were part of what the Small Business Administration provided to assist business persons seeking loans, and if the Bureau received credit for these data, that would greatly enhance the Bureau's image with the small business community. Ms. Ashcraft suggested that lenders might be willing to nominate some of the customers as census spokespersons.

Dr. Roberts said there were a number of "off the shelf" software packages by private vendors that walked the client through the loan application process. The Bureau also could benefit by having its data identified in these packages. Mr. Odom suggested that the Bureau could develop its own packages and incorporate them within its CenStats option on the Internet. Ms. Ashcraft suggested the Bureau could enter into a partnership with a private vendor to develop a CD-ROM that help small business persons work through the business and marketing planning processes.

Mr. Wallace noted that many of these ideas had been discussed at the Bureau before, most of which had been suggested by committee members during previous advisory committee meetings. One problem, however, was that the Bureau was not the only source of the data needed for these packages. So the question was how to put together a package requiring data from other sources. Ms. Fischer said in cases where it was not possible to form partnership agreements, the Bureau could consider providing links on its own web site to the sites of the other agencies.

Dr. Roberts asked whether the Bureau had developed a priority list of programs to cut in case it is faced with its worst case scenario. If there was such a priority list, the Bureau needed to communicate its consequences to those users most affected by the cuts. Mr. Wallace answered that the Bureau had developed contingency plans in case it did not receive the necessary funding to conduct an economic census similar to the 1992 census, but the agency was hoping it would not need to communicate these contingencies to its users.

Should We Add "Noise" to Data as a Disclosure Limitation Option? (AEA, ASA, PAA)

Ms. Zayatz discussed her paper on adding "noise" to data as a means of avoiding disclosure of respondents. To do this, the Bureau traditionally has withheld data that could be used to identify its respondents. Adding "noise" to the data is another disclosure limitation technique that the Bureau has used less often, as it did with data swapping for the 1990 census tables and plans to do again for Census 2000. The traditional disclosure-avoidance technique of withholding or limiting the data cannot keep pace with the growing demand for an ever-wider variety of data products. Consequently, the Bureau is considering using "noise" as its disclosure limitation technique for a microdata file containing Survey of Income and Program Participation data linked to Internal Revenue Service data. The use of "noise" or data swapping does have an effect on data analysis, but it allows for the release of more data items and formats.

Ms. Zayatz asked the members three questions–

- Should the Bureau use techniques, such as "noise" adding and data swapping, for disclosure limitation?

- Where should those techniques be used? (Demographic and/or economic data? Microdata and/or tabular data?)

- How do users feel about the trade off between more but masked data versus less but unmasked data?

Drs. Voss (PAA), Lillard (AEA), and Bell (ASA) respectively addressed these questions and discussed their views on adding "noise" to census data. Dr. Voss praised both the author and the paper. This topic is important because using "noise" as a disclosure limitation option affects the amount and quality of data available to the users. Systematic research in this area should be encouraged; in the past, it seems to have been conducted on an ad hoc basis. Using other techniques besides data suppression probably makes good sense because the latter technique frequently results in the loss of valuable data through complementary suppression.

Data swapping seemed to work well enough for the 1990 census, since there were few user complaints. There is some question as to how well swapping actually worked. After studying the 1990 census data for his block, Dr. Voss felt the data may have revealed a little too much about the block's one Black male, but not enough to be problematic for the Bureau. Once the research is complete, the Bureau should use masking techniques, probably at the microdata level. Also, adding "noise" probably could be used in conjunction with data suppression in many cases. An important reason for adding "noise" to the data is that users will prefer the availability of more data with "noise" than less data without it.

Dr. Lillard said the confidentiality of both individual respondents and firms should remain as one of the Bureau's highest priorities, as should the agency's efforts to study the issues through continued research. Making high-quality data available to the public also should be a high priority. Meeting these two standards is both a challenge and of critical importance to the Bureau. The addition of "noise" to data, however, raises two concerns–

- For microdata, the perturbation of adjoining cells may result in a net loss of data.

- Random swapping of information could be problematic, as well, especially if the swapping is across states or other geographic areas.

Regardless of what the Bureau eventually decides, the agency's policy should be to provide full information to its users. The agency must state very clearly exactly what changes were made to the data. If the users are aware of the process, there are statistical ways for them to deal with the data in their models. Other alternatives, such as making unmasked data available to bonded users in Federal centers, also should be given full consideration.

Dr. Bell said presently there were no clear answers to whether the Bureau should add "noise" to its data since there were four conflicting goals regarding disclosure avoidance–

- The most important was to limit the disclosure risk.

- Another was to make efficient use of the data, yet allow for flexibility of analysis and minimal variances between the masked and unmasked data.

- Another was maintaining unbiasedness, in which valid analyses resulted from the data.

- The other was the data should be easy to use.

There are numerous techniques for adding "noise" or masking the data. The difficulty is determining which technique is best for which situation. In the hypothetical case involving a Black-owned business in a particular neighborhood with an estimated value of $10,000,000, both rank and random swapping could be problematic. In this case, imputing a value from a posterior distribution may be more appropriate. All data sets are different, however, and the difficulty is determining the appropriate technique for each set.

Ms. Zayatz said the Bureau was studying how different techniques would affect the data, particularly longitudinal data. As for making information on these techniques available to users, the agency could inform them of its procedures but not the parameters used for masking the data, e.g., values such as "n," "p," and "k."

Dr. Stokes (ASA) said not knowing the true variance would be problematic in dealing with percentiles. While sophisticated users might understand the data limitations, the less sophisticated would not and could make inappropriate conclusions from the data.

Dr. Binder (ASA) said the mathematical tools were available to solve disclosure problems on a case by case basis, but none of these tools would provide a real solution to the overall need to avoid disclosure. Ultimately, the real solution resulted from the application of common sense. For example, some data (income) are more sensitive than others (industry), so the solution depends on the data set. Economic data are of particular concern since they tend to be very skewed; so for microdata files, it is often very easy to match the masked data back to the original file. Also, the concept of having the original database available at selected centers seemed impractical. This idea has been tried before without success.

Ms. Zayatz said the Bureau currently was working with the National Science Foundation (NSF) on the Research and Development Survey. The Bureau will be providing special sworn employees from the NSF with comparative tables in which both suppression and "noise" addition have been applied. The NSF then would decide which technique it preferred.

Dr. Scherer (AEA) agreed with Dr. Binder that economic data were extremely skewed, and that the skewness usually was most pronounced in the largest category. Consequently, the amount of "noise" that would have to be added to avoid disclosure most likely would result in unintelligible data. Unfortunately, the better alternative was data suppression.

Mr. Evans said the problem of data distortion exists when suppression is applied, as it does when "noise" is added. By using a strategic sort of the microdata and perturbing successively in opposite directions, it would be possible to minimize the distortion.

Dr. Lillard said a strategic sort followed by alternate perturbation would be problematic if the first establishment was chosen randomly. Ms. Zayatz agreed that a strategic sort would be problematic in instances involving microdata, but said the Bureau only intended to use this technique on tabular data.

Dr. Pakes (AEA) said withholding the parameters would not be sufficient to prevent sophisticated users from unmasking the data. Also, the NSF had considered adding “noise” to its economic data but had abandoned the idea because the data would be too distorted. Ms. Zayatz said the Bureau was not considering adding “noise” to its economic microdata, but rather as an alternative to suppressing its tabular data. Dr. Binder added that if the values “n” and “k” were withheld, it would be very unlikely that users could unmask the data.

Dr. Juster (ASA) asked if there was a legal requirement that data for establishments be confidential. Ms. Zayatz said there is a legal requirement, even if the information is available from another source. Dr. Scherer added that establishment executives had a sensitivity hierarchy regarding data released about their companies. Information about research and development or profitability was much more sensitive than data on the number of employees. The Bureau needed to respect this sensitivity, as well as meet its legal requirement to keep all information confidential.

Dr. Bell asked for comments about whether the Bureau should provide information, along with its data, regarding the agency’s disclosure techniques. Dr. Stasny (ASA) said it was critical for the Bureau to make this information available to the users, especially the less-sophisticated majority; otherwise, they were likely to misuse the data.

Dr. Knickerbocker said while economic data were widely available through many sources for large corporations, economic census and survey data frequently were the only source of information concerning the vast majority of smaller companies. For this reason, it was especially important for the Bureau to ensure the confidentiality of these respondents. Mr. Mesenbourg added that the Bureau provided economic data down to the place level, which increased the challenge of keeping respondents’ data confidential.

Dr. Klerman (PAA) said the Bureau needed to weigh the conflicting needs of the few (the sophisticated users) against the many (the less-sophisticated users). It was in the Bureau’s best interest to meet the needs of the majority of its users, which probably meant the agency had to make more data available to more users, and doing so meant masking the data. An alternative for the smaller number of sophisticated users was for the Bureau to make the unmasked data available in research centers.

Dr. Stasny said the Bureau should consider making less information available at the place level if that meant more information at the larger levels. Dr. Bell added that less tabular detail at the lower geographic levels also could decrease the need for suppression or masking. Ms. Zayatz said these were considerations affecting the Bureau’s Data Access and Dissemination System (DADS). DADS would enable users to create their own tables, so the Bureau needed to ensure that confidential information could not be obtained in this manner.

Mr. Greenberg pointed out that the addition of “noise” as a means of limiting disclosure was an option that the Bureau was considering for a limited number of tabular data sets. Dr. Voss added that the unmasked data already contained some “noise.”

The U.S. Census Bureau's Marketing Training and Education Program: Present Needs and Future Challenges (AMA)

Abstract. To make the Census Bureau a market-driven organization, we must create a genuine marketing culture within the Census Bureau. The marketing function must be viewed as being the responsibility of every employee, not just customer services and marketing services personnel. The Census Bureau's effort to build this marketing community includes the implementation of a bureau-wide marketing training and education program.

Ms. Spinazzola presented a paper titled "The U.S. Census Bureau's Marketing Training and Education Program: Present Needs and Future Challenges" (see background paper). She gave an overview of the Bureau's strategic plan for the marketing training and education program noting that the Census Bureau's Marketing Services Office's (MSO) goal is to foster the development of a customer-oriented and market-driven culture. She discussed the fiscal year (FY) 1997 curriculum and the FY 1998 proposed curriculum for marketing workshops and seminars and some of the future challenges for this project.

The main goal of the Marketing Training and Education Program (MTEP) is to achieve an institutional goal of greater customer satisfaction. Other objectives are to create a marketing community and contribute to the career effectiveness and satisfaction of Bureau employees through such actions as recognizing and rewarding customer-focused behaviors. The MTEP has four strategic goals–(1) develop a consistent training strategy for the MTEP, (2) communicate the MTEP vision and market the program internally, (3) link the MTEP with the Bureau's Human Resources Goal, and (4) establish a core marketing curriculum.

To achieve these goals, the Bureau will take the following steps: (1) use a systematic approach to program development, (2) target training participants, (3) establish and completely communicate a clear top-down vision of the desired state of greater customer satisfaction, (4) effectively market the program internally, (5) effectively create a customer-focused culture at the Census Bureau by first meeting the needs of employees, (6) recognize that the use of rewards and recognition is the single-most powerful tool management has to win strong employee commitment, (7) institute best practices and a commitment to continuous improvement, and (8) select the marketing curriculum wisely.

Ms. Spinazzola noted that Dr. Stewart of the American Marketing Association subgroup conducted the first MTEP workshop on April 30, 1997, at the Census Bureau. The second seminar on "Fundamentals of Marketing" will be conducted by the American Management Association on May 5-8, 1997. The third workshop will be conducted by the Canadian firm Lemmex and Associates during the week of June 17, 1997. She also noted that MSO has been conducting monthly breakfast and lunch seminars on a variety of topics such as, "The Results of the Internet Customer Survey," "The Introduction of the Marketing Services Office Intranet Site," and so on. The MSO is organizing the Census Bureau's Customer Service Week in September 15-19, 1997.

The proposed plans for fiscal year 1998 include "Implementing Strategy" workshops for middle managers, "marketing coordinators' team learning," "introduction to marketing" workshop for middle managers, "customers service" workshops for the general workforce, "Focus on Customers" seminar series, "customer commitment" professional development program, continue with the ongoing marketing breakfasts and lunches, "marketing spotlight" program, Census Intranet

Marketing University/MSO Intranet University (an online educational resource), and Customer Service Week.

Some of the future challenges for the marketing project include–

- Program evaluation.
- Managing the training program during times of financial stress.
- The need to rethink the “workshop” approach to training.
- The need to integrate the role of diversity into the marketing curriculum.
- Marketing the MTEP and generating interest in the program.
- Cultural change takes time.
- Time/staff available to train/educate the Census Bureau population.

Ms. Spinazzola presented the following three questions to the members for their comments:

1. Is the MTEP’s strategic plan appropriate? Is the proposed program heading in the right direction?
2. Would you add to or change the current curriculum in terms of content, approach, instructional methods, etc.?
3. What are some ways you would deal with the future challenges presented in this paper?

Dr. Stewart noted that he had the opportunity to spend 3 hours yesterday (April 30, 1997) with many of the Census Bureau’s senior staff and had a good insight of the general training and education issues at the Bureau. He said the MTEP was very impressive and ambitious. This type of training will benefit the agency. His only concern was that the plan was too ambitious. The plan is trying to do a lot within a very short period of time. Based on his meeting with the Bureau staff on April 30, it was not at all clear to Dr. Stewart what the Bureau means by “customer focus” or “market focus.” He observed a general consensus among the Census staff that “customer focus” or “market focus” was a good thing at the abstract level, but he did not get quite so much agreement when he asked them who were their customers, what were their priorities, and where should they focus. From the outcome of the April 30 session, Dr. Stewart felt that there was much to be done with the Bureau’s senior leadership in terms of gaining some consensus about exactly what the focus of the MTEP should be–which customers, what sets of skills, and what types of conferences the plan should include. Yesterday’s session was the beginning of the process to identify that there were some disagreements and that there was a need to develop some consensus. Dr. Stewart emphasized that this process needed to move forward. He noted that the MSO will have difficulty driving a more generalized curriculum through the organization until the Bureau’s senior management agreed on exactly what they are trying to accomplish.

According to Dr. Stewart, it is important in an organization to distinguish between being “market-focused” and being “marketing-focused.” The Bureau needs to have all of its functions, whether it is accounting, purchasing, or operation, to be responding to the market. For this, the

Bureau staffs need to have some exposure to serving customers and markets. He gave an example of a program called LUTI (Learn Use Teach and Instruct) used by the Xerox Corporation. The program essentially begins with senior management learning about customers; they then apply that within their organization by teaching the next level of management. LUTI is a top-down approach with a cascading effect. Dr. Stewart noted that the advantage of this top-down approach is that the Bureau would need outside instructions only for senior-level training and maybe for spots along the way, but for the most part, could use internal resources for teaching.

Dr. Stewart thought the proposed MTEP courses were interesting, but the agency should tie to these courses some very specific changes in the organization that the Bureau expects. He asked the agency to determine first what it is that needs to be changed (e.g., outcomes, interaction patterns), what are some of the functions at the Bureau that are not being customer-focused, and so on. Dr. Stewart noted that he saw a lot of discussion in the MTEP curriculum of “customer focus,” but he did not see a lot of customers in the curriculum. If the Bureau wants to get customer-focused, it will have to get its staff in front of customers in a listening role. The agency should bring in customers, such as congressional staff and other data users, and make it a listening opportunity for the Bureau staff at all levels. Staff at all levels need to understand the implications of their own behavior on customers. The agency should also look at its internal structure/workings to see how it is affecting the customer base. Dr. Stewart believed that the Bureau needed partners for this project; it can leverage its resources by partnering with other government agencies and sharing costs with them for taking classes or training. He also noted that if different persons in the Bureau deliver different parts of the MTEP, the plan would become diluted and lose continuity; he suggested the use of a small group of people conducting the workshops and training for continuity. Dr. Stewart said that the MSO also needs to think whether or not its role is going to be very broad including designing, managing, delivering, and evaluating the program. He suspected that the MSO did not have enough resources to do it all and, therefore, should consider a role of broker by identifying the needs and matching people from other parts of the agency who could provide the necessary assistance. His final suggestion was that the agency would be better off focusing on a few “quality” programs as opposed to having “many” programs.

Dr. Roberts asked if the Census Bureau was far ahead of other agencies in customer focus. Mr. Kavaliunas said it was; the Bureau had requests from other Federal Government agencies for attending Census customer services workshops. Ms. Fischer and Ms. Ashcraft noted that the Bureau should take advantage of these requests from other agencies and share ideas of customer services and marketing with them.

Ms. Semans asked if the Bureau had a program where senior staff answered the agency’s Customer Services’ telephone lines. Ms. Spinazzola said the Bureau did not.

In response to Ms. Spinazzola’s question if general workforce employees at the Bureau should take an introduction to marketing course, Dr. Stewart said that probably was not necessary. Instead, he noted it would be desirable if different employee functions are organized around customers. Finally, Dr. Stewart reiterated that the MTEP was too ambitious, which was a source of concern to him.

Final Review of New Product Development Guidelines (AMA)

Ms. Dickinson presented a paper titled “Final Review of New Product Development Guidelines” (see background paper). She noted that the Marketing Services Office (MSO), with guidance and support of the Bureau's Marketing Coordinators Team and the Data Dissemination Steering Committee, wants to equip the agency with one seamless electronic product registry and provide data users and management with a complete listing of all Bureau products and services. This will help the Bureau's subject-matter areas with their marketing issues and concerns, provide guidelines for product development, acknowledge and encourage entrepreneurs and internal partnerships, and establish a working capital fund for product development and marketing.

Ms. Dickinson noted that the MSO's product development plan was modeled after that of Statistics Canada. Ms. Dickinson referred to Step 5 ("Register in Corporate Database") of the 10-step plan (see chart in the background paper). This plan allows the Bureau's subject-matter areas which produce products and services mandated by law or are produced on a recurring basis to be registered in the database only. When queried by the Marketing Coordinator's during the plan's draft stages, staff in these areas had a perceptual problem with the MSO's initial proposal thinking that they would have to go through additional steps to produce products they had been providing for years. Ms. Dickinson said also that the MSO had brought together all areas at the Bureau that needed a product registry and formed a subcommittee to fully define the variety of needs to develop a single accessible source of product information. The goal is to develop a single corporate repository of all products and services including meta data, an order entry, inventory, a financial management system, and marketing intelligence leading customers to specific products and transactions. She emphasized that all of these are included in step 5 of the 10 steps of the product development guidelines.

Ms. Dickinson said that the new Bureau's plan provided opportunities for offices to propose new products and services for which funding is "soft." The MSO would help these offices through the 10-step process by helping to conceptualize the product, research market costs and revenues, conducting corporate review, and obtaining funds. She noted that the Bureau's Administrative and Customer Services Division has been working on a prototype of the product registry. The MSO's plan includes beta testing, focus groups, site visits, advertising, and promotion, identifying technical support needs, monitoring sales, and evaluating customer satisfaction and marketing effectiveness. A new feature for the Bureau would be corporate funding and revenue-sharing.

Ms. Dickinson added a fourth question (see background paper for the other three) to the list of questions presented to the American Marketing Association members--"One of the Bureau's goals was to keep up with rising customer expectations, to deliver more timely and user-friendly products, and to recoup costs for distributing them. We have outlined a process to help subject areas conceive, develop, and fund new products and services. How does the Bureau encourage entrepreneurial spirits and partnerships to–(1) develop value-added products like "Statistics Canada's "flagship" reports, (2) provide joint efforts to marry economic and demographic products, (3) create time-series data by appending NAICS (North American Industrial Classification System) codes to products that are based on Standard Industrial Classification (SIC) codes, and (4) add value to and sell historical and a time-series products from the Lawrence Berkeley Labs data sets?"

Ms. Semans commended the MSO for its plan and changing its emphasis to the product registry following input from its staff and Statistics Canada. She noted that the MSO has developed what appears to be a sound process. Ms. Semans compared her Holiday Inn process to the Bureau's and said hers, however, placed more emphasis on Step 1("Conceptualizing the Product Proposal"). She noted that "product registration" is a wonderful database for a product manager and asked if the Bureau had a product manager. Ms. Dickinson said the Bureau had many different product managers. Ms. Semans gave examples of product management at the Holiday Inn, where they go before a review board and defend their products. She also pointed out that providing technical support (step 9) as described in Ms. Dickinson's paper should be moved to an earlier step so its resources can be defined and included in the pricing scheme. Ms. Semans recommended that the product development process should be opened up at the "front end"; it should allow for generation of ideas, provide focal points, and be the stimulus for innovation. "The product development process should include 'hand-off' between developers and implementors." She also suggested that the Bureau–watch competitors, take concepts to customers, use a pipeline of ideas and offer opportunities for blue sky brainstorming, use the "Go/No Go" Decision Rule, and be sure to include key measures for success. She added further that the Bureau should–

- Take baby steps and get staff to think about new and improved products.
- Include a reward process for staff.
- Provide staff a forum and system for suggesting new and improved products.
- Reward ideas that help learning rather than failures.
- Set up competitions to encourage staff for innovations.
- Think about "millennium products," like a coffee table book, similar to Statistics Canada's.

In reference to question 4 (the newly added questions), Ms. Semans said it was a cultural problem within the Bureau. The problem could be diminished by training. Ms. Dickinson asked how MSO could help when some of the offices at the agency say that they do not have resources to do more. Ms. Jocz suggested that the MSO incorporate some product development exercises to energize people and tie them to a reward system. Dr. Stewart added that the Bureau must recognize people in every step of a product development to generate higher motivations. Ms. Fischer agreed with Dr. Stewart and added that the Bureau ought to create an atmosphere where people feel good about how they could improve something and how they could contribute toward a product development. To achieve this, Ms. Fischer added that the agency needs to reward and acknowledge even small contributions to generate enthusiasm. This type of acknowledgment will show that the organization listens to its employees' ideas.

Ms. Semans agreed with the other members and said that it would be a positive process for the Bureau. She noted that even if a product is not marketed, people who developed it step-by-step should still be recognized for their efforts.

In reference to Ms. Semans' comment on rewarding failure, Dr. Stewart suggested that the Bureau use the phrase "reward for learning" (i.e., learning from failure or what we can learn from this experience for the future) rather than using the term "reward for failure."

Ms. Fischer believed that the Bureau can succeed in creating a positive cultural atmosphere by integrating new ways of doing business and by building on learning experiences. Ms. Fischer held up Statistics Canada's Yearbook–one of its "flagship" products that Ms. Dickinson had shared with the AMA members. Ms. Fischer thought it would be a perfect example and time for the Bureau to prepare a similar book on the eve of the new millennium and Census 2000.

How Should We Proceed to Develop Generalized Software for Survey Processing

Operations Such as Editing, Imputation, Estimation, etc.? (ASA)

Abstract. The U.S. Census Bureau is re-engineering its data processing systems for economic surveys and censuses. For economic censuses (and the Annual Survey of Manufactures (ASM), we are replacing much of the edit-and-imputation portions of census specific systems with a general-purpose subsystem called Plain Vanilla (PV). For our current economic surveys, we are developing a single processing system, called the Standardized Economic Processing System (StEPS), to replace 15 separate systems used to process 113 current economic surveys.

PV is a general-purpose editing and imputation subsystem, which we are incorporating into census-specific processing systems. It consists of modules for performing verification edits,
ratio edits, and balance edits. The ratio module performs ratio edits, followed by imputation of the minimum number of edit-failing items. The PV ratio module incorporates the methodology of the Census Bureau's SPEER (Structured Programs for Economic Editing and Referrals) edit system, which is bases on the Fellegi-Holt model of editing. Our development of the PV ratio module started with the SPEER code and added to it code for 23 different imputation formulas. These formulas include regression models and functions of historic data, administrative data, or industry-average ratios. The PV balance-edit module consists of submodules for simple one-dimensional edits performs adjustments commonly used by subject-matter experts; plus, as a default or a last-resort, it adjusts the data using a "trim and adjust" algorithm. The sub-module for nested one-dimensional edits uses a network representation to decompose the general balancing problem into 16 easier balancing problems, which are solved by various methods. The submodule for two-dimensional edits performs iterative proportional fitting, followed by controlled rounding.

StEPS will contain modules for editing, imputation, estimation, and variance estimation. This paper describes each of these modules and projects the changes in statistical methods (or the lack of such changes) resulting from the use of StEPS to process our current economic surveys.

Prior to the subgroup's discussion of the above question, Dr. Clark explained that statistical confidentiality legislation had been prepared with the agreement of eight Federal statistical agencies, including the Census Bureau, allowing these agencies to use each others' data for analytical and statistical purposes. The confidentiality of the information provided by respondents would continue to be protected by the new legislation. The list of savings and benefits to be derived from this sharing of information is not as extensive as the Bureau would like. She asked subgroup members for examples of research projects that might benefit from expanded access to this information within the Federal government. This legislation is on a fast track. She asked ASA subgroup members to forward their comments or suggestions to Dr. Singh within the next week or two. Dr. Juster asked for clarification of the confidentiality restrictions in the new legislation. Dr. Clark said she understood that the protection of respondent confidentiality provided by the new law would be similar to that contained in the Bureau's authorizing legislation, Title 13 of the U.S. Code. She added that a companion bill would authorize broader access to Internal Revenue Service data by other Federal statistical agencies.

Dr. Binder agreed that developing generalized survey-processing software systems seemed like an excellent idea and that one of the first issues the Bureau would face in this regard would be whether to develop and maintain these systems within the agency or to contract the work to outside organizations. If the Bureau adopts the former approach, programmers will need to take care that the resulting software is portable across a range of computer platforms (e.g., personal computers, Unix machines, midrange and mainframe computers) and is essentially transparent to the user. The new software will need to have good interfaces with existing data-processing systems, to be able to receive input from and direct output to more specialized systems.

The development of generalized systems will be a major investment of resources. While this would be a valuable investment, Bureau executives need to understand that initially it will not look very productive because no new data will stem directly from the implementation of generalized systems. In addition to the backing of senior management, successful implementation will also require that programmers and managers maintain their focus on actual applications.

Among the activities for which the Bureau might consider developing generalized programs are data collection and capture, sampling, estimation, edit and imputation, confidentiality, record linkage, and analysis and dissemination.

Turning to the edit and imputation system summarized by Mr. Sigman, Dr. Binder said the developers need to think about the relationship between data collection and capture and edit and imputation. The Bureau will need to know how much editing a generalized data-capture system should do and which edits should be implemented during the edit and imputation stage. He suggested thinking carefully about the resources devoted to micro editing, which involves correcting individual records, versus macro editing, in which particular records are not corrected and problems are resolved by statistical adjustment at a higher level. Macroediting may also lead to the "cleaning" of some individual records. For preplanned data products, macroediting should save a large amount of resources. On the other hand, each request for special tabulations may require separate macroediting.

He expressed some concern about how easy it would be in the proposed generalized system for data analysts to change responses. While the Bureau may consider this an advantage, he felt it would lead to over editing. He also worried about the "Plain Vanilla" system's inability to determine imputations that simultaneously satisfy ratio and balance tests because this could lead to a lot of recycling and inefficiencies. He pointed out that survey statisticians rather than computer scientists wrote many of the original computer programs and that these older systems are often difficult to maintain (e.g., some are written in older versions of FORTRAN). He suggested the Bureau consider alternatives to using these older systems and noted that Statistics Canada has switched to a SAS-based approach to estimation and sampling.

He mentioned that the background paper referred to 23 imputation formulas but did not give details. He wondered if one of these was nearest neighbor imputation, which he noted was the method of choice for many of Statistics Canada's surveys. He thought the work on the detection of outliers represented a good start and suggested other research directions. He said that the "Plain Vanilla" generalized system would not be able to handle complex edits and imputation but that this might be beneficial because it would prevent over editing.

He was very interested in the possible applications of the estimation system to all the Bureau's surveys and possibly to others both inside and outside the Government. He felt it was important that the agency build the system in a modular fashion so that flexibility can be incorporated into the design.

With regard to future topics, he pointed out that some surveys were still not using probability samples and that this deserved a closer look. He raised the possibility that this might be appropriate in some circumstances.

Turning to the questions raised in the background paper, he said that Statistics Canada used generalized systems for data capture, sampling, automated coding, and record linkage. He noted that at Statistics Canada the acceptance of generalized systems had been gradual and that the transition was easier when a survey was new or being redesigned. These systems do have to prove their worth to managers by producing acceptable results. Having a senior manager champion the new system is also extremely helpful. The most common pitfalls of generalized systems, especially in their early versions, are slow operation, lack of functions, user ignorance of the system, need for preprocessing and postprocessing, and poor communications with users. Successful implementation of generalized survey-processing systems usually requires both a strong development team and a good support team.

Mr. Sigman agreed that the paper did not contain much detail on the 23 imputation formulas and noted that he and a colleague had prepared a paper on balancing that will be given at the 1997 annual meeting of the American Statistical Association. He also offered to share copies of internal Bureau papers on the ratio edit program. Dr. Bell wondered how the Bureau decided which imputation formula to use for a particular survey and whether more than one could be used on a single survey. Mr. Sigman replied that the work at the Census Bureau initially focused on censuses rather than surveys and involved a team of mathematical and survey statisticians and programmers from the various divisions in the economic directorate. The subject-matter specialists' knowledge of the kinds of reporting error present in a particular data set guided the selection of the specific imputation formula. Another contributing factor was the nature of the relationships within a given data set. Once the team disbanded, former team members continued developing the programs and adapting them to particular surveys. For current surveys, the Bureau adopted an approach that had subject matter specialists select the imputation formula that seemed most appropriate to the characteristics of and the relationships within the particular data set.

Mr. Garrett asked about the impact of a switch to generalized systems on time-series data. Mr. Sigman said that the new system would not change the estimators. On the issue of computer languages, he noted that the Bureau's older processing systems were often written in FORTRAN or COBOL but that the new generalized system will be written in SAS. Dr. Winkler added that some of the edit and imputation programs were written in FORTRAN because that was the language the programmers in the economic area were familiar with. More recently, with advances in computational algorithms, it may be easier to write some programs in the "C" language than in SAS or FORTRAN.

Dr. Binder said the Bureau may experience a lot of demand to provide access to the generalized software now under development to many data users. Statistics Canada has experienced this and charges high fees for the purchase and support of its generalized systems. For example, the data collection and capture system sells for approximately $300,000, plus an annual support fee of $30,000. Other systems are less expensive. The estimation and record-linkage systems cost about $30,000 each. Statistics Canada has sold the data collection and capture systems to Australia and the United Kingdom. Dr. Winkler added that the Canadian systems are extremely well documented and designed.

Dr. Tourangeau noted that the cost savings of introducing generalized systems are sometimes, but not always, dramatic. For example, the introduction of computer-assisted personal interviewing allowed modest gains in cost and timeliness. Dr. Binder added that measuring increased efficiency can be very difficult. The new generalized systems can do much more than was possible in the past and productivity has increased, but it remains hard to quantify the increase. Mr. Sigman said that some of the improvement will probably be nonquantifiable.

Discussion of Concept Differences Between American Community Survey and Census 2000 (PAA)

Abstract: Residence rules, crucial to the planning and taking of a census, define spatially where to count people and enable the Census Bureau to provide the most accurate census possible for all geographic areas. One paper discussed the reasons the Bureau chooses the residence rules it uses in the decennial census and the major underlying concepts. This paper also addressed specific rules that apply to persons with multiple residences and outlined all the residence rules proposed for Census 2000.

The decennial residence rules are based on the concept of “usual place of abode,” which has evolved to mean “usual place of residence,” that is, the place where a person lives and sleeps most of the time. This concept has guided where people should be counted since the initial census taken in 1790.

In choosing a design for the 1996 American Community Survey (ACS), the subject of a second paper, an implicit question arose to the extent to which the data collection should be constrained to give results consistent with the decennial census population count. Clearest during the census year, the issue asks: Should the ACS target population be the April resident population counted by the census; or like other continuing household surveys, should the ACS target the changing monthly populations throughout the year?

As desirable as consistency would appear, two objectives took priority over exact consistency with the census population. The first objective related to the low cost, combined with other advantages of a continuous operation. Accordingly, the Census Bureau designed the ACS as a “rolling” monthly sample, along the lines described in Kish (1990), rather than as an “annual sample census” conducted around census time each year.

The second objective was complete coverage of the population and completeness of the collected data. When applying the census rules seemed likely to cause problems with coverage or the ability to collect the data for the rolling monthly design, the agency changed the residence rules to improve the likelihood of good coverage. In one sample the agency determined residence as of the time of interview rather than Census Day.

Dr. Jacobsen did not see a simple and straight-forward answer to Census Bureau’s question on whether using different concepts for the decennial census (usual place of abode) and the ACS (current residence) would be appropriate. She said she thought initially that doing so would be all right. Upon learning information based on the latest Senate action on the issue, her mind set changed. She said her answer also would depend on the purpose for which the agency would use the data. She wondered if users of the data would do a good job of making decisions and planning if they had to use two sets of rules. She suggested that the Bureau should provide block-group-level intercensal population estimates to appease those persons who worry about data at that level. If the agency does not use the long-form questionnaire in Census 2000, she imagined big problems for Census 2010 and beyond.

On whether the data would be comparable enough if the residence rules were different, Dr. Jacobsen suggested that the Bureau should allow a variety of users with different purposes and uses to experiment with the ACS data and see how the data work before making a decision on this point. She wondered how the Bureau would instruct an individual who transitions regularly between residences and does not spend a majority of nights at any one place, such as the person who might spend several nights at a location near a job site or school and other nights at another location or the child who transitions between parents with equal custody.

Dr. Jacobsen suggested that the Census Bureau might use split samples or review ethnographic literature to examine the patterns of people who do not have a usual residence to decide upon the suitability of 2 months as the amount of time for defining current residence. In reference to the question on other concerns with the residence rules, she questioned how the Bureau would treat cases involving group quarters populations, people who say they have an official residence but spend most of their time somewhere else, and individuals who have more than one residence.

Responding from a decennial perspective, Mr. Rolark said that a person's legal or voting residence had no effect upon the individual's usual residence because the census counts people where they say they spend most of their time. In the case of the child involved in a joint-custody situation, the census counts the child at the home where found on Census Day if the parents cannot make a clear distinction as to where the child spends more time. Dr. Jacobsen said that her concerns related more to the ACS than to the census.

Ms. Becker disliked the idea of using different rules for the ACS and the census. She liked the census paper's concept of using cycles and said doing so would work well for all cases except those of equal joint custody. She felt that the general public might find the different rules confusing, which could threaten the credibility of the ACS and the whole continuous-measurement (CM) process. She suggested that the ACS should match at least the intercensal population estimates. She said that the Bureau might conduct experiments at the state level to find answers to some of the questions presented at this meeting.

Ms. Becker felt that using 2 months as the period of time for defining current residence presented a problem for seasonal areas. For example, she reasoned that the Bureau cannot publish reduced population data for an area because a survey conducted during a period when many of the area's residents have traveled away from there yielded a much lower population than data shown for the area during its peak period.

Ms. Becker did not see a problem in applying the usual-residence rule to the ACS for individuals with more than one residence. She suggested that the Bureau could capture the data it wants by asking these individuals, directly on the questionnaire, whether they consider their current address or another as their usual residence. She advised that having people to dial an "800" number to report that they live somewhere else, as suggested in an earlier session, would place an extra burden on them and confuse them.

As a legitimate alternative, Mr. Alexander said that the Bureau possibly could go back and collect the data for the ACS on a current-residence basis and force those numbers to agree with a usual-residence-based number. He said that the agency could get a current intercensal population estimate for the ACS that came as close to the usual-residence number as the current intercensal estimates do. In other words, the Census Bureau could use current-residence population controls or more census-consistent population controls, enabling the agency to collect data from people at their current residence and adjusting the numbers to the usual-residence population. However, he said that he preferred having the population consistent with the data collection.

Mr. Alexander did not consider the use of an April 1 residence based on the ACS sample as a legitimate alternative and said that anyone with information on how to construct such a questionnaire should pass that information on to the Bureau. He said that the Bureau did not know how to collect, say, in September for about where the person resided in April in all the unusual ACS cases. He supposed, for example, that if a snowbird moved permanently, no one would want to go back and place that person in September where he or she lived in April. He could see no reason to make exceptions for the snowbirds when migrant workers fall into the same unusual category. He felt that no one would want to tackle the job of using information from September and trying to figure out where a migrant worker resided on April 1. He pointed out that the ACS did not have the capability to collect data at the usual residence so as to reconstruct that unit when the usual residence was not the sample unit. He said that the Bureau possibly could go back and collect data as close as possible to April 1 and force them to match the April 1 numbers.

Mr. Alexander felt unconvinced that people could not live with having intercensal estimates that were inconsistent with census data. As an example, he said that, if the Bureau could have expanded the Current Population Survey (CPS) to get tract-level estimates, it would have done so gladly. He said that, although the CPS came closer to the usual-residence concept than the current-residence idea proposed for the ACS, the CPS annual population estimates do not agree with the intercensal population estimates made on the census basis.

Dr. Klerman found all the worry over the ACS and census numbers matching unnecessary. He saw no reason for the agency's interest in April 1. He feared double counting in the ACS if individuals followed the rules exactly as spelled out by the Bureau. He advised the placing of a screen on the questionnaire to seek the broadest answers possible and analyzing the data later.

Mr. Alexander said that, for the ACS, the Bureau allows a 3-month follow-up period after mailing the questionnaire. If the agency does not get a response, it mails a second copy; if still no reply, a phone attempt; then if still no answer by the third month, the agency attempts a personal visit. He considered a period of more than 3 months too long for defining residence. He said that the agency spreads the ACS sample over 12 months of mailouts, with a goal of achieving a steady mixture of responses representing a fraction each from mailbacks, phone calls, and personal visits.

Concerning the 2-month usual-residence concept, where individuals cannot say clearly that they stayed 2 months consecutively at any given address, Mr. Alexander said that the agency generally intends the rule to be de facto. He especially liked the conceptual statement of the rule which states that, if a person says that he or she lived consecutively for 2 months at a given location, then the Bureau would consider that individual as living at that location. If the person was at the location less than 2 months, he or she still would be included there unless her or she usually lived someplace else. The Bureau probably would have to explain the concept differently to suit varying situations.

In response to Dr. Jacobsen's question on the Bureau's plan to handle commuters, Mr. Alexander and Mr. Rolark identified this as the most controversial area. Mr. Alexander said there was some debate within the Bureau about sequencing different wording when interviewing people about their residency. While the operational people would like to ask where does an individual think he or she "lives," followed by "where he or she lives now," the residence-rules experts prefer going quickly to the question of where does the individual sleep or eat "most of the time."

Dr. Klerman feared the possibility of double counting. He said that, while much of the discussion centered around individual problems, the ACS survey questionnaire dealt with household characteristics. He advised the Bureau to do cognitive testing for situations such as one in which a student would say that his or family thinks he or she lives at the family residence when, actually, he or she lived at the place of the interview. Mr. Alexander said that the operational people shared Dr. Klerman's view on double counting. He said that, for the commuter worker, they would like to place the person at the family's address if someone at the family address is interviewed. In general, the ACS concept asks for current information and would place the individual at the current address if interviewed there. For group quarters such as homeless shelters, prisons, and jails, Mr. Alexander said that the Bureau planned to make the residence de facto. Hotels where most occupants have a usual home elsewhere will be out of scope.

Market Research at the Census Bureau--Are We on the Right Track? (AMA)

Ms. Dickinson presented a paper titled "Market Research at the Census Bureau: Are We on the Right Track?" (see background paper). She noted that a great deal of the Bureau's marketing activities will be Intranet-based. Therefore, one of the steps in the marketing plan is to develop and maintain an Intranet-based management information system that would include sales statistics query and report capabilities. It will also encourage managers to use "collective" data to make sound and customer-focused business decisions. She said Mr. Zeisset, who has been working with the Marketing Services Office (MSO), played an intricate role in helping MSO set up the Intranet site.

Mr. Zeisset made a slide presentation noting that the Intranet site was not yet fully implemented. At the moment, the site includes monthly reports, but, later it will include information on sales promotion and other things. The core location is called "Know Your MSO" that includes the Bureau's mission and goals, a list of MSO staff, services provided by the Bureau staff, and cross-references to other parts of the Bureau (such as the Public Information Office, Administration and Customer Services Division, the teams and committees in which MSO plays an important role) that are also involved in marketing services. The Intranet site will also include guidelines and policy statements as soon as they are developed, marketing briefs from results of surveys done by the MSO, and marketing plans. The sales statistics site will include a feature on customer feedback. Mr. Zeisset explained how anyone at the Bureau would be able to enter information on the customer feedback form. The agency is still working on completing a retrieval tool for the customer feedback page. Currently, people can look up information on any Census Bureau product sold through the Bureau's Administrative and Customer Services Division or the Government Printing Office (GPO).

Ms. Dickinson said, prior to the formation of the MSO, the Census Bureau had no formal marketing research plan. The purpose of the MSO's research plan is to establish and carry out market research that would include a comprehensive strategy, integrate existing information through the development of additional databases, and arm the Bureau's executive staff and program managers with viable business intelligence through regular and systematic reports. MSO is trying to develop three types of market research–(1) market analysis by monitoring trends in the market place that could affect the Bureau's product offerings and reimbursable work, (2) programmatic research by compiling and analyzing information about the Bureau's customers to assist them better, to understand customer needs, and to better target customers for promotions and other marketing efforts, and (3) product evaluative research by measuring customer satisfaction with the Bureau's products and services. To achieve these goals, the agency needs some additional infrastructures, such as developing and integrating several databases, current reimbursable customers list, GPO and customer services databases, databases from other areas of the Bureau, and routinely add SIC (Standard Industrial Classification) codes to customer records.

Ms. Dickinson added that the plan envisions preparing regular reports to executive staff and program managers for communicating marketing information as well as retrieval capabilities through the Intranet. Special activities will include recording and identifying opportunities and/or barriers and patterns for increasing revenues; building a case for missed revenues through reimbursable special tabulations and surveys; identifying mechanisms for recording, collecting, and interpreting daily business intelligence; encouraging managers to identify relevant issues and use that information to adjust programs and products; and interactingly and systematically collect, record, analyze, and monitor customer behaviors to correlate them to improve products and services. The MSO will help managers improve relationships with their colleagues, customers, and affiliates to improve the effectiveness of the marketing plan. There is a need to more effectively compile and use customer information in targeted promotions, surveys, and other marketing efforts. The MSO will profile customers to better understand them, identify key customers, customer behavior patterns, needs, and expectations. It also will establish a base line and ongoing measures for customer satisfaction by (1) preparing periodic and annual reports on customer satisfaction surveys, (2) measuring how well the Census Bureau is meeting the internal and external customer services standards, and (3) informing and educating the Bureau staff in the utility of marketing incentives.

Ms. Dickinson noted that the MSO has finalized the Internet customer survey that has been done every spring for the past 3 years. The next survey is due in the summer of 1997. The survey asks customers about data access, uses, computer environments, file format preferences, etc. The MSO's research through news groups indicates that companies are getting relevant information from surveys posted on their sites despite concerns about self-selecting universes. The Bureau's marketing coordinators have been asked to test the prototype feedback form (shown in the slide show presented by Mr. Zeisset) and allow the Bureau to record issues and concerns. MSO is updating the customer services' and GPO's transaction databases back to the year 1991, and hope to make the database available to managers in the spring of 1997 and have quarterly reports available beginning this summer. MSO has established a listserv as a result of a meeting 2 weeks ago with the Statistics Canada, the Mexican Statistical Agency, and some of the Federal agencies in Washington, DC. This will allow the Bureau to exchange marketing issues with its counterparts on an ongoing basis. She noted that the Census Bureau's Internet site was being accessed by about 2.5 million people per week. In August 1997, the Federal Web Consortium will provide the Bureau with the results of a study analyzing the characteristics of visitors and their visits to the Census Bureau's Internet site.

Ms. Dickinson said 15 of the marketing coordinators and some of the MSO staff will be attending the American Management Association's 4-day long course "Fundamentals of

Marketing." She presented four questions (see background paper) to the subgroup for its comments.

Ms. Fischer (AMA) said the paper was very interesting and the Bureau has done an outstanding job not only in embracing the challenge of being marketing-driven, but also in knowing the tools and activities that would be crucial. She pointed out that the marketing research was the key component of the plan, and that the agency had quite an abundance on its plate now. She was encouraged to see that the Bureau was looking at the plan as a building process and the research was an important facet of it. Ms. Fischer listed some key components of research that she felt were important–(1) the integration of information from all available sources, (2) the consistency, which she did not think MSO was approaching as a stand-alone information need, (3) creation of a research platform is crucial and sustaining that would be a big challenge, (4) both research activities and processes need evaluation because the methodologies may need to vary from time to time, (5) the ultimate goal is to have the most relative, timely, and pertinent information–its the "the must-knows," not the "nice-to-knows," and (6) build into all research activities a very clear research objective including a very short statement of what outcomes are expected as the results of these research activities.

Ms. Fischer said the questions presented by Ms. Dickinson were very ambitious, particularly the first one. In her opinion, there was no magic number for determining how much to spend on research. She believed that an efficiently built research platform would have its benefits later. On the second question, Ms. Fischer said it always would be a challenge to decide whether or not to continue, to ask the same questions, and to avoid being redundant. On the budget question, she commended the MSO for setting up a systematic approach, but cautioned that research was not a cure, but a tool and an investment. People should not be throwing research at every problem. She noted that the Bureau ought to find more ways to leverage research needs and activities. On the fourth question, Ms. Fischer said the Bureau's Intranet site would be an excellent source for dissemination of information.

Ms. Fischer showed several view graphs to explain various aspects of a marketing framework, such as customer relationship and purchase cycle pyramid. The pyramid starts with tactical solicitation to purchase products at the bottom of the pyramid, and then moves upward to trial/acquisition, continuity, and, finally, retention. She reiterated that the MSO must keep the global perspective of retaining customers. Finally, she asked not to be concerned about taking care of business today, but to build into the research activities those opportunities and possibilities that might not have been entertained to date.

Ms. Ashcraft (AMA) agreed with Ms. Fischer's commentary. She mentioned some of the things that worked for her when she was a marketing research director for a manufacturing company for 2 years–(1) she always gave a presentation to a group of key people for every research project without waiting for the report to come out to make sure that the information was timely and the discussion after the presentation led to a strategy session, (2) the information she collected not only included numbers, but also included open-ended comments from customers, (3) when customers requested for a project, she always asked what decisions were going to be made with this project, and (4) every time her company developed a new product to test market, she set up a system to buy purchase diary data.

Ms. Jocz (AMA) added that while working with managers who are new to marketing research, its important to set the objectives with them clearly. In addition, present to them "mock" results using phrases as "if these were the results, what would you do?" to see their reactions.

Ms. Semans (AMA) believed that, in an agency where marketing culture is relatively new, it was important for the MSO to become an advocate of customers.

Mr. Kavaliunas asked Ms. Fischer if the MSO should focus on the broad dissemination of the results of its marketing research at the present time or should it be emphasizing partnering with other divisions at the Bureau who could use some of the marketing research results.

Ms. Fischer said it was not a question of one or the other because each one has its own objectives. She thought that a balance between the two and integrating the two would be desirable.

Dr. Roberts (AMA) said the concept of Intranet site was wonderful, but it did not tie together with the concept of building a market-driven culture at the Census Bureau. In the early stages of development, it would be better to seek out some specific research sites rather than a general one. Put the weight more heavily on some specific projects that have specific applications and can demonstrate specific results within a short period of time. She believed that some early “smash hits” were definitely needed.

Ms. Dickinson added that the MSO’s project managers meet biweekly or monthly with other Bureau staff to define how MSO could help them with marketing.

Referring to Ms. Dickinson’s comment, Dr. Roberts suggested that, in the early stages, the MSO might want to take up an aggressive role going to other Bureau staff rather than their coming to MSO for help. Mr. Kavaliunas said that it has already begun; staff from other parts of the Bureau have been coming to the MSO for suggestions.

Mr. Zeisset asked if the Bureau’s market research should increase the priority on research on customers who have not yet used any Bureau products or services.

Dr. Stewart said the Bureau should focus its attention on one critical customer, i.e., the Congress. He believed that the Congress and its staffers were critical customers of census data. In addition, the Bureau should make an effort to help its own staff understand what drives the congressional decision-making on funding and other measures affecting the Bureau’s activities, the misperceptions the Congress might have had about the agency, etc. It will help the Bureau as a whole to think about how to deal with this very important constituency.

Mr. Kavaliunas said the Bureau has a Congressional Affairs Office (CAO). Dr. Stewart noted that the CAO’s job was to handle congressional affairs which is quite different than what he was suggesting. He believed that, to become more proactive, the Bureau staff needs a broader understanding of why and how the Congress makes decisions on the Census Bureau’s affairs.

Ms. Semans thought Dr. Stewart’s suggestion was very attractive.

Dr. Roberts and Ms. Fischer suggested that, with limited resources for promoting products and services, the Bureau should let people self-identify themselves on the Internet by providing them with certain staff’s E-mail addresses.

Center for Economic Studies (AEA)

Dr. Haltiwanger reviewed the role of the Chief Economist of the Census Bureau and the Chief of the Center for Economic Studies (CES), the current and proposed initiatives of the office, and the areas for which the Bureau wanted advice and suggestions from the members. He emphasized that many of the proposals he may mention in his presentation are speculative and are not Bureau policy at this time.

He described his broad goals as—

- Developing high quality microdata, ideally longitudinal, on households and businesses.
- Making that microdata accessible in a user-friendly, cost effective manner.
- Maintaining the confidentiality of respondents.

There is relatively little disagreement about these goals, but there are tough issues about the allocation of resources and priorities for achieving them. Most of the Bureau's efforts in collecting and processing business data are intended to produce aggregate data, rather than microdata. This is due, in part, to the difficulty of producing microdata files for public use while maintaining confidentiality. Dr. Haltiwanger said he believes that understanding the dynamics of aggregate data requires understanding the underlying dynamics of the microdata.

If high-quality microdata is a goal, the Bureau has to consider how to obtain this information. The agency must think differently about how it collects data, and must work at building comprehensive, integrated micro databases. Data collection has to be coordinated so that various microdata sets can be linked to create the databases desired.

Dr. Haltiwanger said the CES is working on developing microdata sets and providing access to them for users (the latter primarily through the CES at Bureau headquarters, and at the two research data centers (RDC's) in Boston and at Carnegie Mellon University). He noted that much of the CES's expertise is in the manufacturing sector, but there is no reason to restrict the attention of the CES or of users to that area. There are a number of actual or potential data sets available for nonmanufacturing sectors from the annual surveys, the Standard Statistical Establishment List (SSEL), and so on. However, producing the desired microdata sets from the various data sources available remains extremely difficult. The agency's subject-matter divisions have their own operational responsibilities, which generally involve specific data products that have to be produced on specific time tables, with little time or resources left over for even properly archiving data extraneous to their primary operational responsibilities. One of the CES's main functions is that of data rescue operation; the staff scours the Bureau for microdata sets that can be recovered or saved before they are compromised or discarded during other operations. There is a tentative proposal for a "data warehouse" system, to archive all census microdata and create a place for holding these data sets for future use.

The creation of the RDC's has shown that there is a much broader range of data users than previously thought and a major goal for the Bureau is to provide users with wider access to its data. The CES is developing guidelines for accessing demographic data sets as well as economic data through the RDC's. The Census Bureau also is consulting the National Science Foundation (NSF) on the best way to expand the RDC program. The current idea is to put out a call for proposals, then form consortiums of outside sponsors later this year and ask these consortiums to explain their plans to establish an RDC, provide organizational support, etc. The Census Bureau and NSF could form a partnership to obtain support for the program as well as apply discipline to the process of planning and selection. (He commented that other Federal agencies (e.g., the Bureau of Labor Statistics (BLS), the Department of Health and Human Services (HHS)) are exploring the idea of opening their own RDC-type activities, and the Census Bureau is considering collaborating with other Federal offices to turn the proposed new centers into Federal research centers, with data from a variety of Federal agencies. The prohibition against most agencies' sharing their data with other agencies is a major obstacle to creating Federal research centers, but Dr. Haltiwanger thought something still could be done.) As the number of RDC's expands, the Bureau needs to make its data sets more user friendly.

In response to a question by Dr. Pakes (AEA), Dr. Haltiwanger said the following data sets are available at the RDC's:

- The Longitudinal Research Database (LRD).

- Pollution Abatement Costs and Expenditures (PACE) Survey.

- Manufacturing Energy Consumption Survey (MECS—since this survey was collected under the auspices of the Department of Energy the Census Bureau had to obtain authorization from the sponsor to allow researchers to use these data).

- Survey of Manufacturing Technology (SMT).

- Research and Development Survey (R&D).

The data sets are on compact disc-read only memory (CD-ROM) discs at the Boston and Carnegie Mellon RDC's. There is a Census Bureau employee at each center who has access to these CD's. A researcher who wants to work with a particular kind of data has to submit a proposal; once that proposal has been approved, the Bureau employee actually extracts the data from the appropriate file and provides information on the limitations of the data, confidentiality requirements, and so on. The Bureau wants to make the data as accessible as possible, but maintaining confidentiality requires monitoring research activity.

Replying to a question by Dr. Lillard (AEA), Dr. Haltiwanger said the RDC's have very extensive software systems available. If a researcher must have a specific software package that is not already on the RDC system, the Bureau will find some way to load it onto the system. The research at the RDC's is conducted in a secure environment—e.g., the research data sets are accessible only through computer stations in a restricted access room. The Census Bureau employee on site is not a guard, but protecting the confidentiality of the data is part of the assignment. Nevertheless, researchers at the centers have a considerable degree of flexibility when working onsite, and most know about the restrictions they will have to observe before they undertake their research.

In reply to a further question by Dr. Lillard, Dr. Haltiwanger said the Boston RDC has experienced a considerable increase in demand for its services and has been able to handle the workload so far. The Bureau realizes that as the range of researchers using the RDC's expand, the additional work will put pressure on the agency and its capacity to deliver the services and access promised. If the demand on the centers is such as to require expansion, the agency will try to expand the program.

Responding to a question by Dr. Gort (AEA), Dr. Haltiwanger said the “start-up” costs for an RDC includes office space, hardware, and the personnel cost of the Bureau employee on site. The typical hardware installation is 10 high-speed computers and workstations (about $50,000 in hardware), but a sponsoring university (for example) can usually provide floor space, and may also have an arrangement with a hardware vendor for a better deal on the equipment required. Security also is a matter of hardware, requiring setting up a restricted-access room with card-key or some other access system, plus login procedures for workstations, etc. Researchers also have to be sworn in as special employees of the Census Bureau, which makes them subject to title 13 confidentiality requirements.

In reply to questions by Dr. Lillard, Dr. Haltiwanger said the Bureau is working with the NSF to develop standards for awarding RDC’s as part of the plans to expand the program. The Bureau is looking at proposals for centers, and would like to open additional ones as soon as possible. The agency believes it could support four more centers over the next few years. The Census Bureau would provide the core data sets for any new RDCs, but any additional resources or data sets will have to be discussed with the agency and will probably result in some specific cost if provided by the Bureau. If, on the other hand, a researcher planning to pursue a project that is very much in the Census Bureau’s interest or area of inquiry, the CES would be open to providing some additional support.

Replying to a question by Dr. Scherer (AEA), Dr. Dulberger (AEA) said she had mentioned the RDC program in his testimony before Congress some time ago, and the Senators and Representatives she spoke with indicated they think the program is a great idea.

Mr. Weinberg said he is working on providing data for research from the demographic side, and pointed out that the Bureau’s headquarters at Suitland, MD, functions as a third RDC. It is relatively easy to make demographic data available to the RDC’s since most household surveys have a public-use data set. The only thing the Census Bureau employee at the RDC has to supply is the “match key” and, perhaps, some additional geographic detail. There is a geographic limit in some public-use files since only 46 of the 51 State/Area codes are used, but the Bureau can supply researchers in the RDC’s with county or even census tract data. Disclosure analysis guidelines are required, but these are not difficult to develop.

Dr. Haltiwanger noted that there is an opportunity to combine various data sets to yield very useful information. For example, the Bureau has a “Census fellow” that will be working at the agency for the next 2 years to link the Current Population Survey (CPS) data to current business surveys data (the method will involve using social security numbers (SSNs) from internal CPS files and unemployment administrative data (e.g., SSNs and employer identification numbers (EINs)). The Bureau also is trying to arrange a collaboration with the Bureau of Labor Statistics (BLS) on this project.

The Census Bureau also is involved in new surveys on health issues involving both employer and employee data sets. The agency plans to try to match the employer data sets to its other business data sets, and hopes to establish an RDC at the Department of Health and Human Resource (HHR) to enable researchers there to access the new data set.

Another matched employer-employee data set is the worker-establishment characteristics database, based on 1990 Decennial Census data. This was a successful effort, but some of the matching issues proved more difficult than they should have been because none of the data sets were intended for subsequent matching. The Census Bureau plans to conduct a similar data set construction for the next population census, and to improve the results by coordinating the planning of the matching effort with that of the census.

Dr. Haltiwanger commented that if the Bureau decides it needs high quality microdata for microeconomic analysis and to build high-quality aggregate statistics, then the agency has to take a more comprehensive and coordinated approach, and should work for data-sharing among Federal statistical agencies. He asked members for their advice on the various plans for increasing access and the range of data available through the RDC's, and on ways to combine household and business data.

Dr. Berndt (AEA) said he was delighted that Dr. Haltiwanger had taken the job with the Census Bureau. Regarding the manufacturing/nonmanufacturing situation, the question that has to be considered is what exactly should be measured for the new industries. The CES should consider working with some outside organizations that are involved in this issue.

Dr. Pakes (AEA) commented that if the Census Bureau should be talking to people working in the industries of greatest interest. He pointed out that a significant part of the problem with measuring productivity is the price data at the BLS. The price and quantity data are not separated out well and that is a place where better integration would be a major improvement. The Census Bureau should take a close look at how researchers use the data, and the kind of feedback they give the agency. The Bureau could derive considerable benefit from access to the results of the work of these researchers.

Dr. Dulberger said making the RDC's *Federal* data centers is an excellent idea. With regard to data sharing, she pointed out that when she had brought the idea up during discussions with several members of the Senate, the Senators were not aware that data could not be shared across agencies. There is an interest in enabling the statistical system to work more efficiently, but there is a lack of awareness of the problems involved. She added that the agency should take a more “closed-loop” approach with regard to questionnaire and survey design. The CES's experience in using the data could be applied to survey and questionnaire design to make the data even more useful.

Dr. Knickerbocker commented that part of the chief economist's job is to “influence” survey design based on results of CES research. This may be one of the most difficult parts of the job, since it will require attempting to influence people with great experience in designing surveys.

Dr. Scherer remarked that with regard to linking data sets the census of manufactures at the seven-digit level has a huge volume of unit-value information (i.e., data about prices), and he wondered if anyone at the Bureau is considering linking that data set to information from BLS. He said he would like to know more about the links between research and development expenditures and productivity growth.

Dr. Gort wondered if anyone at the Bureau has explored the idea of creating a research center that would have available microdata sets from the United States and from other countries? Dr. Haltiwanger said there has not been any specific effort aimed at creating an international microdata research center. There are several private organizations that have sponsored conferences involving studies of how these microdata issues are being worked on in particular countries. He noted that the Census fellow program will involve a conference (in about a year) of people from several countries who have developed matched employer-employee data sets.

Ms. Runyon commented out that many years ago there was a high degree of collaboration between Federal agencies on such efforts producer/price index data. For example, the production indexes used as benchmarking mechanisms by the Federal Reserve were calculated by the Census Bureau in conjunction with other agencies. This was a highly successful effort, and it may indicate that how good a centralized statistical agency would be, if established, may depend primarily on the leadership involved.

Dr. Betancourt (AEA) endorsed the proposal to develop new concepts of output since those currently in use are outdated. He added that, regarding international comparisons, the World Bank has been accumulating an incredible amount of data on households and firms and even has a division called Living Standards Measurement Service. The World Bank also had been constructing large data sets on establishments, some of which are longitudinal. He pointed out that the benefits of data sharing are obvious to the Committee and the Bureau, but the agency has to make a more systematic effort to reach the “unconverted” among the public and political establishment.

Dr. Haltiwanger said the Bureau needs support from the data user community on precisely these kinds of issues.

Dr. Berndt suggested the Census Bureau should consider trying to get a regular column in the *Journal of Economic Perspectives* to highlight the advantages of data sharing to the profession.

Dr. Clark commented that, regarding data sharing, there has been a discussion of data sharing within the Interagency Council on Statistical Standards, which is composed of the administrative heads of the eight principal Federal statistical agencies. The agencies comprising the Council have made an effort over the past few months to develop examples of collaboration between agencies. As part of the discussion of collaboration the Census Bureau identified some things it believed it could do better if the agencies involved could share their data. The list turned out to be rather short, and the Director decided to consult the Bureau’s advisory committees and ask them to identify additional benefits from sharing data. She asked members to consider this question and provide the Bureau with their advice within the next 2 weeks.

Mr. Mesenbourg said that, about 18 months ago, the Office of Management and Budget (OMB) convened a meeting between staffs of the eight major statistical agencies to develop a program on the advantages of data sharing. During the process of compiling the information on data sharing the staffs contacted various Congressional staffs and offices, and it soon became obvious that there were very different views about sharing business data and sharing data on individuals. The Bureau advised OMB at the time that it anticipated considerable criticism from the privacy lobby on the idea of data sharing. The Congressional staffs also advised the Bureau that data sharing would need a “legislative champion” if it was going to obtain the support needed in Congress. Any advice on these subjects, including any possible legislative champions, will be welcomed.

Dr. Haltiwanger noted that when the statistical agencies talk about data sharing they explain benefits such as greater efficiency and cost-reductions. Data users have a different view, and examples of how data sharing will help improve data quality would be very useful.

Dr. Dulberger suggested that explanations of the benefits of data sharing should conform to the level of statistical sophistication of the person or audience the Bureau is trying to influence.

The Bureau needs to show how data sharing will improve its ability to answer this or that question posed by the Congress or some particular program.

Dr. Pakes agreed, adding that explaining what can be done with data sharing that could not be done without it will be critical.

Mr. Mesenbourg added that the congressional staff consulted seemed to say the agencies had not only to identify policy issues that data sharing would address, but also specific cost savings or burden reductions that could be expected.

What Are the Main Issues Facing the Federal Economic Statistics System? (AEA)

Dr. Ehrlich said that the Census Bureau is very close to conducting the first population census incorporating the full range of statistical techniques and sophistication developed over the past half century, assuming that it is allowed to do so. He noted that the Senate is scheduled to vote early next week on a bill that includes an attachment barring the use of sampling in the decennial census.

One issue confronting the Federal statistical system—consolidation of Federal statistical agencies—is rapidly gaining momentum, and anyone interested in statistics should be paying close attention to what is being done. A year ago, consolidation was considered “odds against,” but in the interim a variety of political interests have become involved, including the ongoing interest among some in the Congress in reducing or abolishing the Department of Commerce.

The proposals regarding reorganizing the statistical system have varied almost from week to week. Initially, the Census Bureau and the Bureau of Economic Analysis (BEA) were both to be transferred to the Department of the Treasury, but this would mean that the economic census would be done under the auspices of the same department responsible for collecting business taxes. The Census Bureau’s data-collection operation relies on the credibility of the agency’s promise of confidentiality of the data, and transferring the Bureau to the Treasury Department would undoubtedly affect the credibility of that promise of confidentiality.

A second plan was to move the Census Bureau to the Department of Labor. This had many of the same problems as the proposed transfer to the Treasury Department, since the Department of Labor also enforced regulations on businesses. In fact, a congressional staffer confessed that one reason this plan was being considered was the belief that the Bureau “would not stick” in the Labor Department, and so the Congress could come back to the problem of where to put the agency in another year or so.

The next choice was to move the Census Bureau and BEA directly under the Office of Management and Budget (OMB), despite the fact that the OMB has no experience in administering a staff of 10,000 or so people. Still another plan called for the Census Bureau to be broken up, with the decennial census operation on its own, thus cutting ties between the professional staffs of the censuses and ensuring that the mutual support and interchange of technical expertise and experience would be impeded or eliminated.

At one point, the BEA was to be transferred to the Federal Reserve, which might delight the chairman, but would cause tremendous problems in the financial markets. Currently, the financial markets “know” what the Federal Reserve “knows,” and that knowledge enables the market to anticipate policies, which contributes to the stability of the markets. If the markets did not have the information they currently get from the BEA, policy predictability is eliminated and the volatility of the markets will increase. Dr. Ehrlich pointed out that the good choices of places to put the statistical system are very limited. (He noted that in a discussion with a congressional staffer, when asked where he would put the statistical system if the Department of Commerce "went away," he had suggested the Department of the Interior, in part because the mapping work is done there.)

The idea of an independent statistical agency has gained momentum recently, and has been helped along by the recent conversion to consolidation of Dr. Janet Norwood, the former Commissioner of Labor Statistics. Her plan calls for the consolidation of the Census Bureau, BEA, and the Bureau of Labor Statistics (BLS) into a single independent agency outside of any cabinet department. In the discussions, the terms "consolidated" and "independent" seem to be used interchangeably, which is very dangerous. Enthusiasts for the plan point to Statistics Canada as a successful model for an independent statistical office, but Statistics Canada faces a different demographic and economic situation than is confronted by the Census Bureau, BEA, and BLS. In any event, the head of Statistics Canada reports to the Minister for Industry.

The creation of a consolidated statistical agency, as proposed by Dr. Norwood and others, would result first in the nation's statistical system losing its cabinet-level voice. Budget resources are allocated and overarching policy decisions are negotiated at cabinet level, and a voice in those discussions is essential. Who should be making the case for the resources needed to complete the decennial census or carry on the quinquennial census programs—the Secretaries of Commerce and Labor, or an economist selected to be the director of an "independent" statistical agency?

A second issue is the accountability of the statistical agencies, including accountability for things such as quality measurement and obtaining measures of output and pricing. Better accountability would encourage faster improvements in these areas. There is always a temptation for technical staff to devote more and more time to explore purely technical questions related to their essential work. The Federal statistical system's job is to be the world's leading producer of reliable commodity data, and the accountability that requires the agencies to do that job might be undermined in the specialized culture of an "independent" consolidated statistical agency.

The accountability of the Census Bureau is reflected in the priority applied to its programs. Recently the Bureau has had to eliminate economic data series of enormous importance—e.g., Pollution Abatement Control Expenditures—in order to safeguard the quality of contemporaneous gross domestic product (GDP) estimates, which is the first priority for the agency's economic directorate. The BEA underwent a similar process, having to cut such programs as its regional economic projections, not because the products were not useful, but because they were extraneous to the primary responsibility of the agency.

Dr. Ehrlich said that consolidation has the potential to do a lot of very good things. A consolidated system would develop national priorities, provide for greater consistency in measurement and methodological issues, facilitate sharing research and development programs in data-collection techniques, eliminate redundant work, and induce young people to come into the system (the average age of professional staff in the Census Bureau's economic directorate is over 40). However, the way in which consolidation will occur will have a great deal to do with whether those benefits will be realized. The debate on this question is proceeding, and it is likely to be resolved in relatively short order.

In response to comments by Dr. Dunkelberg (AEA), Dr. Ehrlich said his concern is that the proposals for a consolidated statistical agency will create a sort of “Emerald City” for economists that will be wonderful with regard to methodological choices, but will not work well in the real world of the Federal Government.

Dr. Dulberger (AEA) commented that she understood the legislation will create a commission to examine the statistical system and make recommendations about its organization. She said she was asked to comment on Senator Moynihan’s proposed bill and had pointed out that one of the skills needed to do the examination is the ability to understand mergers and acquisitions. Anyone involved in a potential merger should know how to derive the benefits of the action before taking part.

Dr. Ehrlich said that the question is which agency’s culture will prevail. He noted that the mid-level staff at the BLS impresses him, but there is no culture of change within the agency. The Census Bureau has built in the culture of change pretty well, but is thin in terms of management. The BEA is doing very well and thinks about change as an objective function, but is so small that it cannot function as a director of organizational culture. He commented that Norwood’s proposed organizational chart shows an *Über*-statistician with four operating units—BEA, BLS, Census (minus decennial census), and Decennial Census. The Moynihan-Kerry Bill calls for spending $30 million to examine the statistical system before doing anything else, but the alternative is to do something now and not make the effort to study the problems. The Horn Bill last year would have “brute forced” a system design and included a provision that no organization/structure fixes would be made for at least 18 months. He suggested that if changes are demanded, the system and organizations involved should be looked at so that the changes needed can be identified.

In reply to questions by Dr. Dunkelberg, Dr. Ehrlich said the U.S. Chamber of Commerce has not reacted to the proposals to reorganize the statistical system, in part because this situation has “sneaked up” on them. He doubted that any organizations would be interested in writing letters to the Congress about the consolidation plans, and noted that, in any case, there are concerns in some places about the overlap among the Department of Commerce agencies involved.

Responding to a question by Dr. Pakes (AEA), Dr. Ehrlich said there was less input from academia to the consolidation plans than he would have liked. A major facet of the new plans is the redefinition of the role of the Chief Economist.

Dr. Pakes commented that Congress does not seem to understand the uses of the statistical data. Somehow, despite everyone’s best efforts to better inform it about how vital the data are, Congress never seems to get the message. He did not understand how the Bureau, its advisory committees, and the entire data user community remain unable to make any progress in this area.

Dr. Ehrlich pointed out that part of the problem is the growth of generalized anti-statist attitudes in the public and in Congress. There also is the related view of the “data luddites” that statistical data are used by “pointy-headed social engineers” to manipulate policy. Moreover, the constituency for statistical data is very diffuse.

Dr. Pakes noted that the data users outside the Federal Government may well be invisible to the Congress, or nearly so, but that major Federal agencies use the data as well. Dr. Ehrlich agreed, and pointed out that there are moments when other agencies using the Bureau’s statistics have been able to make a very good case before the Congress. The Department of Labor has been “crackerjack” at this very thing in its testimony, and its support has been instrumental in the progress made toward saving the long-form questionnaire for Census 2000.

Develop Recommendations and Special Interest Activities (AEA)

Dr. Dulberger asked members for any recommendation addressing the Bureau’s presentation on adding “noise” to data to improve confidentiality.

Dr. Lillard suggested a recommendation that would encourage the Bureau to maintain confidentiality while continuing to release as much detailed data as possible and distributed a proposed text. Dr. Knickerbocker commented that at the end of the discussion of the proposal about adding “noise” to the data Dr. Klerman (PAA) had suggested an alternative method of protecting confidentiality by using enclaves, research centers, bonded researchers, etc. It might be useful to have the alternative approach, at least with regard to microdata, on the record. Dr. Lillard said his draft recommendation addresses that issue and agreed to prepare a final draft and submit it to Dr. Dunkelberg.

Dr. Scherer commented that the tone of the presentation on adding “noise” to the data was generally skeptical, and he inferred from the discussion that followed that data element suppression would be preferable to adding “noise” in situations when the confidentiality problem was created by a skewing of the data set.

In response to a question by Dr. Dulberger, Dr. Pakes said the problem is that the method that would be most efficient will depend on the kind of data set involved; demographic data will be different from macro economic data. Dr. Gort commented that no single methodology will be best for every purpose; for certain data sets suppression will be best, while for others masking or “noise” would be better. Dr. Pakes pointed out that the last paragraph of the proposed recommendation addresses this point with language to encourage the Bureau to research the issue.

With regard to the lessons learned from the Medical Expenditure Panel Survey—Insurance Component (MEPS-IC) Pilot, Dr. Berndt read a draft proposal recommending that the Census Bureau and the Agency for Health Care Policy and Research (1) include benefit design characteristics from employers or insurer in the data-collection efforts for the MEPS-IC, (2) investigate integrating historical data on medical histories of individuals, (3) keep in mind the possibility of conducting hedonic price and related analyses on the relationship of insurance premia to benefit characteristics in implementing the MEPS-IC, and (4) consult with the Bureau of Labor Statistics (BLS) and Bureau of Economic Analysis (BEA) as appropriate, on the use of these data for research on price series.

Dr. Pakes wondered if it would be possible to ask for information on individuals’ health status before those individuals joined a health plan? Dr. Berndt and Dr. Pakes agreed to work on language to add to Dr. Berndt’s recommendation to address investigating collecting data on individuals’ health status prior to participation in a health plan.

Dr. Dulberger read a draft recommendation that, with regard to measuring the impact of the information sector on the Bureau’s programs, the Bureau (1) clearly articulate the goals of the measurement effort, (2) identify appropriate measures of activity in these industries, (3) recognize and plan for the difficulties and special considerations of collecting data on/from small businesses,

(4) recognize and plan for the measurement problem associated with electronic delivery of output, (5) establish a joint project with the relevant research organizations for carrying out this project, (6) focus on produced and consumed products and service, and (7) pay particular attention to investments in information technology, intellectual property, and distinctions among labor types.

Dr. Betancourt commented that, with regard to the broadcasting industry, the amount of station and network time that is devoted to advertising is a significant quantity index that can be used to derive an estimate of revenues. He agreed to daft language to address this sort of issue by modifying Dr. Dulberger's recommendation if other members believed it was needed. Dr. Berndt commented that he had no objection to the change in language, although he wanted to make certain the recommendations did not become too detailed.

Dr. Pakes suggested that the "spirit" of the recommendation might be altered to try to separate current resources that go to current production and those that go to stock for later use. He agreed to draft language on this issue.

Dr. Dunkelberg commented that, with regard to the proposal to convert the 1992 Economic Census data to the North American Industrial Classification System (NAICS), his view is that the costs of the project would decisively outweigh the benefits. Moreover, the reclassified data would not be available until 2000 or later and would produce data of questionable quality. He agreed to draft a recommendation that the Bureau drop the idea.

In reply to a question from Dr. Scherer, Mr. Mesenbourg said the Bureau will publish 1997 Economic Census data at the NAICS six-digit U.S. detail industry level where that detail is available. Dr. Scherer suggested the Bureau prepare a report, based on the 1997 census, of the principal former SIC code that emerges out of the new NAICS industry, as well as the percentage of activity that would have been classified in other SICs but for the change to the NAICS. The key would be that data be provided that would enable users to identify those industries that have historical continuity and those that do not.

Drs. Dunkelberg and Scherer agreed to draft a recommendation on the NAICS plans.

Dr. Knickerbocker asked members to contact Ms. Muroff with any additional thoughts about subjects covered at the meeting, such as the data sharing question and the various policy debates.

Ms. Muroff said the Bureau would like to have the final recommendations by early next week.

Develop Recommendations and Special Interest Activities (AMA)

This Committee nominated Mr. Adams as its new chair.

Ms. Ashcraft commended the Census Bureau for taking the initiative to integrate response and product marketing. She felt this would maximize the agency's marketing expenditures.

Ms. Jocz said, regarding Cooperative Research and Development Agreements, that the Bureau should continue to form partnerships with commercial research suppliers and to explore partnerships with academic institutions. She also suggested that the Census Bureau should assess partnerships in which the agency is the lead user for commercial products and technologies and should explore possible partnership activities involving compatibility between the old Standard Industrial Classification System and the new North American Industrial Classification System.

Dr. Roberts suggested that the Bureau should develop an aggressive and proactive communications plan for the Data Access and Dissemination System, with emphasis on user benefits rather than on features. She warned that the plan must include communications tailored to the less informed, occasional user, as well as to the knowledgeable, expert user.

Ms. Fischer applauded the Bureau's commitment to being market driven. She recommended research to support the agency's efforts. She recommended also that the agency should take steps to accelerate the development of a systematic framework, designed with a "go-stop-evaluate" approach. She said the agency should incorporate "futuring" techniques into the research framework to explore strategic opportunities. She suggested that the Bureau should expand and enhance the process of integrating multiple information sources into the research framework and should examine creative, engaging methods of disseminating internal data intelligence to foster continuous learning throughout the agency.

Ms. Fischer also commended the analytical approach taken by the Bureau in segmenting markets for Census 2000 products and in considering focused marketing approaches. She said it is important that the agency continue to engage customers in the designing of Census 2000 dissemination plans. She would expect the Bureau to develop concurrent marketing plans for each product and identify target segments for each. If the agency would do that, she recommended that it develop one primary message for each market segment, supported by two or three benefit-oriented secondary messages. She said that the Bureau will need to give careful attention to the advertising weight attached to each segment.

Ms. Semans commended the Census Bureau for developing a strong, integrated new-product-development process. She said the decision to focus efforts on registering all existing products in a database to track performance will provide a strong information foundation for product management. She felt that an analysis of the information in the database will provide good knowledge about product life cycles and reasons for growth, development, or stagnation.

Ms. Semans recommended that the Bureau move Step No. 9, "Identify and provide technical support required," of the paper on "Guidelines for Product Registration and New Product/Service Development" to an earlier time period in the process. She reasoned that the technical support required for a product could have a strong impact on pricing strategy, costs, documentation, and product-delivery strategy. She felt that, while the new product-development guidelines are appropriate for the Census Bureau at this time, this process can become an important tool in changing the Bureau's culture to a more customer-focused, innovative, and creative style. To progress the recreation of the Census Bureau, she recommended that the agency should—

- Expand the "front-end" of the new product-development process to identify new product ideas from nontraditional sources, such as marketing research and customer service staff.

- Use the Internet and Intranet to publicize and explore new product-development ideas.

- Focus on whether the development process does or does not produce a successful product.

- Review new products in development with Bureau senior management on a regular basis.

- Reward and recognize Census Bureau employees for new product ideas to encourage risk taking, innovation, and creativity.

Dr. Stewart commended the Bureau for its ambitious training and development activities and its goals. He recommended that the agency focus more on making all functions customer focused than on making itself driven by the marketing function. He said that the Bureau's senior staff should hold a workshop to identify and prioritize different customer sets, as well as the organizational and resource implication of serving each. He advised the agency to communicate these priorities throughout its structure and to use a training process of "Learn, Use, Teach, and Inspect" whereby senior managers become teachers of their junior managers.

Dr. Stewart endorsed the Bureau's efforts to develop products for which customers would pay a fee and recommended that the agency carefully evaluate alternative pricing models that focus on the value of convenience, clarity, complementarity, and timeliness of the information rather than the information, per se.

Develop Recommendations and Special Interest Activities (ASA)

Dr. Binder read his recommendations concerning the reconfiguration of 1992 Economic Census data from the Standard Industrial Classification (SIC) system to the North American Industrial Classification System (NAICS). Dr. Tourangeau wondered why it would take an estimated 10 person-years to complete the hot deck imputation portion of the reclassification. Mr. Garrett pointed out that by the time the reclassification is complete and released, the need for the data will be reduced because the results of annual surveys based on the NAICS will have been published. The members recommended that the Bureau seriously consider not reconfiguring 1992 Economic Census data (because of the high cost and concerns about data quality, among other reasons). If the Bureau decided to reconfigure the 1992 data, the members recommended using hot deck imputation to assign NAICS codes that could not be directly matched with SIC codes.

On the issue of improving the Bureau's plans to introduce and benchmark the new American Community Survey (ACS), Dr. Tourangeau pointed out it would be important to know how much of the change in the data was due to methodological differences between the decennial census and the survey and how much could be attributed to actual change in the population. In response to comments by Drs. Stasny and Ghosh, Dr. Singh noted that the ACS may replace the long-form questionnaire in the 2010 census. The Bureau is exploring the extent to which data from the ACS can replace long-form data from the decennial census. However, the Bureau is planning to have a long-form questionnaire for Census 2000. Dr. Binder noted that some of the variables in the ACS are similar, though not identical, to the census long-form questionnaire, but the data are strongly correlated. He wondered how data from the census should be compared to those from the ACS. Dr. Tourangeau suggested that the Bureau might explore estimators using information from both the decennial census and the ACS. Dr. Ghosh said that to the extent the agency produces model-based estimates for small areas, they should be carefully checked to prevent overfitting and underfitting. He and Dr. Tourangeau agreed on the importance of checking whether models are over or underfitted and of assessing the diagnostics concerning the model's appropriateness. They agreed on three ACS-related recommendations—

- Endorsing the Bureau's plan to use purposive samples for determining the factors that best explain the differences between decennial census sample data and ACS results.

- Urging that the Bureau take full advantage of Census 2000 information in developing estimates from the nationally representative ACS sample.

- When using model-based estimates for counties, subcounties, or census tracts, the Bureau should determine whether the model is overfitted or underfitted and use diagnostics to check the model's appropriateness.

Turning to the issue of implementing the Survey of Program Dynamics (SPD), Dr. Tourangeau recommended that this survey include a subsample of low income households from the March 1996 and 1997 Current Population Survey (CPS) that would be used to improve the quality of the estimates from the SPD. Dr. Juster thought that the CPS underestimated poverty and that the Survey of Income and Program Participation (SIPP) would be a better source for supplementary information. After a discussion of comparable data from the SPD and the CPS, the subgroup adopted the recommendation with only minor modifications and a second recommendation that urged the Bureau to experiment with the development of consumption measures that could provide a better measure of change over time in living standards than money income (which is likely to be a biased measure for welfare dependent households).

On the part of the members, Dr. Binder commended the Bureau's efforts to research methods that would allow the release of more data without compromising respondent confidentiality. He urged the Bureau to consider ways to educate data users about the methods used to preserve confidentiality and alternatives to adding statistical "noise" to data. Dr. Stasny pointed out that adding "noise" was significantly different from doing imputation or editing. Dr. Bell wondered if it might be more realistic for the Bureau to inform data users about the limitations of data that incorporate noise factors. After further discussion, the subgroup adopted the two recommendations.

Dr. Binder suggested the subgroup commend the Bureau for developing and using generalized software for survey processing operations; he felt this initiative deserved support at the highest levels of Bureau management. Dr. Tourangeau suggested accepting the recommendation as written, and the members agreed.

Develop Recommendations and Special Interest Activities (PAA)

Dr. Klerman chaired the meeting, in which Dr. Jacobsen and Ms. Becker also participated. Mr. Long also attended as a Bureau resource person. Prior to the meeting, members had drafted five recommendations—three by Ms. Becker and one each by Drs. Klerman and Jacobsen. Dr. Jacobsen's recommendation was incorporated into one of Ms. Becker's, and another of Ms. Becker's recommendations was tabled for future consideration.

Of the three recommendations agreed to by the PAA members, Ms. Becker commended the Bureau for its timeliness in the development of its products marketing strategy for Census 2000. She recommended that the Bureau–

- Work with experienced users in drafting its planned marketing issues paper.

- Sponsor a working group including key user groups regarding plans for the access and use of census data, particularly in the 2001-2002 period.

- Solicit user input for the documentation of each product.

Ms. Becker's second recommendation concerned how the "usual residence elsewhere" (URE) of respondents is dealt with on the Census 2000 questionnaire. The 1990 and previous census questionnaires contained a separate item for respondents to enter their usual residence when it differed from the address at which they were actually enumerated. The proposed Census 2000 questionnaire relies on respondents using a toll-free telephone number if they do not receive the questionnaire at their usual residence. The recommendation–

- Expressed the subgroup's concern that the change may result in a significant decrease in the number of URE households identified.

- Urged that a specific evaluation of the effects of this change be undertaken.

Dr. Klerman's recommendation concerned the content and sampling methods of the Survey of Program Dynamics (SPD). The recommendation asked that–

- In general, the Bureau consider the SPD in the context of the broader Federal effort to collect data on the effects of welfare reform.

- The SPD focus on longitudinal issues.

Ms. Becker offered a third recommendation strongly objecting to the transfer of the units-in-structure item from the short-form (100-percent) questionnaire to the long-form questionnaire. The reasons given for her objection assert that this item–

- Is inoffensive and easy for respondents to answer correctly.

- Is extremely useful at the block level, helpful in tying the data to the "ground," and useful as a stratifier in samples using block data counts.

- Will be of great value in the development of the Master Address File.

The recommendation urged the Bureau to make every effort to include this item on the short-form (100-percent) questionnaire for both the Dress Rehearsal and Census 2000.

Drs. Klerman and Jacobsen disagreed with this recommendation because it could put the Bureau in an awkward position with Congress, adding more strain to the negotiations in progress regarding the questionnaire. Since other subgroup members who may favor this recommendation were not present, it was tabled for later consideration.

Closing Joint Session

Dr. Dunkelberg presented to the full Committee the six recommendations made by the American Economic Association (AEA) members. In the first, the AEA's position was that the Bureau should not fund the conversion of 1992 census Standard Industrial Classification (SIC) code based data to North American Industrial Classification System (NAICS) based data. This funding can be invested better on other priorities.

The second pertained to the Bureau's plans to measure the information sector, in which the AEA urged that the Bureau–

- Clearly articulate the goals of this measurement.

- Recognize and plan for difficulties in collecting data on small businesses.

- Focus on products, both produced and consumed, and services.

The third recommendation concerned adding "noise" to census data as a means of avoiding disclosure. The Bureau needs to find a balance between protecting the confidentiality of its respondents and providing high-quality data to the public. The Bureau was encouraged to continue its research in this area.

The fourth pertained to the pilot version of the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC). Since the Bureau is working with the Agency for Health Care Policy and Research, the AEA members recommendation was intended for both agencies and consists of two points–

1. The MEPS-IC should include data that distinguish copayments from deductibles, prescription drug cost sharing from other medical-related benefits, and annual and lifetime limits on mental health/substance abuse benefits from all other benefits.

2. Research needs for data on the relationship among insurance premiums, benefits, and risk factors should be considered, and officials at the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA) should be consulted.

The AEA members expressed support for the Bureau's office of Chief Economist and the Center for Economic Studies and recommended (numbers five and six) that the agency–

- Expand the number of research data centers, using the National Science Foundation as a partner to help guide and support the effort.

- Enhance the research data centers by making them "Federal research data centers." Federal research data centers would provide the research community access to the microdata from Federal statistical agencies (e.g., the BLS and the Census Bureau) at various secure sites around the country.

Dr. Stewart presented the recommendations of the American Marketing Association (AMA) members. The first pertained to the integration of response with product marketing for the 1997 Economic Census. This integration makes good sense, and the Bureau's marketing messages should incorporate case studies and testimonials from small business data users. The second recommendation concerned the Bureau's Cooperative Research and Development Agreements. The partnerships resulting from these agreements should include commercial research suppliers and academic institutions. The Bureau should give special attention to partnerships in which it is the lead user for commercial products and technologies.

A number of recommendations were made regarding market research–

- While the Bureau should be commended for its early start in conducting market research, it is urged to accelerate the development of its marketing capabilities.

- The Bureau should incorporate its research into a new product development and assessment program.

- In its product pricing, the Bureau should focus on value-added products designed for special user groups and situations.

- In its training and development, the Bureau should be commended for its efforts to become more customer focused and give its staff greater marketing skills. However, the Bureau still needs to make its functions more customer focused, rather than driven by the marketing function.

- The Bureau's senior staff should participate in systematic workshops to identify and prioritize different customer sets and should communicate this knowledge to the rest of the agency.

Dr. Jacobsen read three recommendations made by the Population Association of America (PAA) members. The first commended the Bureau for its timeliness in the development of its products marketing strategy for Census 2000, and urged the agency to–

- Work with experienced users in the preparation of its marketing issues paper.

- Sponsor a working group of key users for accessing Census 2000 data, particularly during the 2001-2002 period.

- Solicit user input for the documentation of each product.

The second recommendation expressed concern about the reliance on a toll-free telephone number to obtain information regarding respondents' "usual residence elsewhere" on the Census 2000 questionnaire. The Bureau needs to research further the effect of using this technique to obtain that information.

The third pertained to the Survey of Program Dynamics (SPD). The PAA subgroup asked that–

- In general, the Bureau consider the SPD in the context of the broader Federal effort to collect data on the effects of welfare reform.

- In particular, the SPD focus on longitudinal issues.

Dr. Bell discussed the recommendations made by the American Statistical Association (ASA) members. The first urged the Bureau not to reconfigure 1992 Economic Census data to NAICS-based data products. The reasons for this recommendation include–

- Potentially serious quality problems related to the conversion.

- The late date at which the conversion would be completed.
- The considerable cost of the conversion.
- The availability of SIC code-based trends to compare the 1992 with the 1997 census.

If the Bureau decides to proceed with this endeavor, however, the ASA members recommended that the agency utilize individual recoding to allow for the most flexibility in computing NAICS codes and publication of the data.

The second recommendation pertained to the bench marking plans for the new American Community Survey (ACS). The members agreed with the Bureau's plans to use sampling to explain the differences in results obtained from the ACS and Census 2000 questionnaires, but disagreed with its plans to use this comparison sample for national estimates. Instead, for the national estimates, the members recommended the combined use of Census 2000 and ACS data.

The third recommendation concerned the implementation of the Survey of Program Dynamics (SPD). The SPD sample should include a supplement drawn from the 1996 and 1997 Current Population Surveys (CPS) for March. The supplement should consist of a subsample of low-income households that participated in the CPS. This supplement could then be used to improve the quality of estimates of the data most affected by the recent welfare reform legislation.

The fourth concerned measurement issues associated with the SPD. To avoid the likely bias in the measurement of low-income and welfare-dependent households, the members urged the Bureau to experiment with the development of consumption measures, especially with food and housing expenditures. Such measures should be introduced in the 1998 SPD, which covers calendar year 1997.

The fifth pertained to the addition of "noise" to data to avoid disclosure. The members encouraged the Bureau to engage in further research on methods to release more data without compromising the confidentiality of its respondents. For disclosure methods that seriously distort analyses, the Bureau should inform users about the disclosure methods, and educate them on the limitations of the data.

The last recommendation pertained to the use of generalized software for survey processing, estimation, and imputation. The members felt that the development and use of generalized systems is a laudable initiative that deserves support at the highest levels of management.

In response to a question from Dr. Dunkelberg (AEA), Dr. Knickerbocker said the AEA in its recommendations had endorsed the concept of Federal regional data centers and supported the notion of using the National Science Foundation as an instrument for the Bureau to develop and expand the number of regional data centers.

Requested agenda items for the next meeting included–

- Population estimates
- Congress as a customer

- Small-area poverty estimates
- Nonprobability samples
- Survey design experiments

There were no public comments. The meeting adjourned at 12:08 p.m.

I hereby certify that the above minutes are an accurate record of the proceedings of the meeting held on May 1-2, 1996.

Jacob Klerman, Chairperson
Census Advisory Committee of
Professional Associations

Appendix A
Recommendations and Census Bureau Responses

RECOMMENDATIONS OF THE CENSUS ADVISORY COMMITTEE OF PROFESSIONAL ASSOCIATIONS MADE AS A RESULT OF THE MEETING ON MAY 1-2, 1997

The Census Advisory Committee of Professional Associations made the following recommendations to the Director, Bureau of the Census. Comments showing the response and action taken or to be taken by the Census Bureau accompany each recommendation.

Recommendation 1

North American Industry Classification System (NAICS)

"The Committee recommends that the Census Bureau not convert the 1992 Standard Industrial Classification (SIC) based censuses to a NAICS basis. The conversion would involve a great deal of approximation and arbitrary assignment which will compromise the value of the conversion. In particular, these conversion problems will be largest in industries where change has been most substantial and these are likely the most interesting and important areas to study. Finally, the conversion would be very costly and with a very tight budget, there are a number of other projects that should be funded that hold more promise for research and understanding the economy going forward. Those resources should be devoted to those tasks.

"The Census Bureau should provide potential users with a "map" that indicates how well each SIC would map into NAICS along with any quantitative evidence that is easily available to assist users who may have more focused research projects involving SIC/NAICS based data."

Census Bureau Response

The Census Bureau agrees with the Committee's recommendations and will not commit resources to converting the 1992 censuses to a NAICS basis. However, we will make a SIC-to-NAICS map available and as much other supporting information as is practicable.

Recommendation 2

"We recommend that the Census Bureau not reconfigure the 1992 Economic Census to a NAICS basis. The reasons for this recommendation include: (1) potentially serious quality problems inherent in this undertaking; (2) the late date at which this could be completed; (3) the overall cost associated with this endeavor; and (4) the availability of SIC-based trends to compare the 1992 and 1997 economic censuses.

"However, if the Bureau decides to continue with this undertaking, we recommend that they utilize 'individual recoding' (as termed in the Hogan paper) to allow for the most flexibility, both for imputing NAICS codes and for data publication purposes."

Census Bureau Response

The Committee gives several persuasive reasons for not reconfiguring the 1992 census on a NAICS basis. The Census Bureau agrees with these reasons. We will not plan for a general retabulation of the 1992 Economic Censuses on a NAICS basis. We also agree that individual recoding of records, using "hot deck" imputation where necessary, would be the preferable approach if a reconfiguration were ever done.

Recommendation 3

Census 2000 Products

"We commend the analytical approach taken in segmenting markets for Census 2000 products and in considering focused marketing approaches. It is important that the Census Bureau continue to engage customers in the design of Census 2000 dissemination plans.

"We expect that the Census Bureau will develop concrete marketing plans for each product and identify target segments for each. As it does so, we recommend that it develop one primary message for each target segment, supported by two or three benefit-oriented secondary messages.

"In this era of tight budgets, the Census Bureau will need to give careful attention to the advertising weight attached to each segment. It also needs to pay careful attention to the timing of messages delivered to each segment."

Census Bureau Response

The Census Bureau values the Committee's praise and advice regarding our approach to marketing Census 2000 products. The Census Bureau plans to follow the Committee's recommendations and will advise the Committee of its progress as products are developed.

Recommendation 4

"The Committee commends the Census Bureau for beginning, early, the process of designing and marketing census products and agrees with the general time line presented. The Census Bureau should work cooperatively, in an iterative manner, with experienced census data users throughout the product development process.

"Specifically, we recommend the following:

"1) Work with experienced users in drafting the planned issue paper.

“2) Sponsor a working group to solicit information from all the key user groups regarding current levels and methods of accessing census data and plans for future access, particularly in the 2001-2002 period.

“3) The Census Bureau should solicit user input regarding the documentation needed for each product.”

Census Bureau Response

The Census Bureau appreciates the Committee's interest and concerns. We plan to work with the user community in drafting the issues paper and will provide users with specifications for each standard product as plans for that product are developed. We will continue to work closely with the Association of Public Data Users, the American Library Association, Data Centers, Federal agencies, and other stakeholder groups as we continue the development of the Data Access and Dissemination System (DADS).

Recommendation 5

American Community Survey (ACS)

“We agree with the Census Bureau’s plans to use a purposive sample for determining the factors that will best explain the differences between ACS results and those obtained from the Census long form, due to the small number of counties being included in the study. However, because a purposive sample has been used, there should be no attempt to make inferences about the National Population from this sample.

“Because of the strong correlation between the Census long form data and the ACS data estimates, the latter survey based on the nationally representative sample should take full advantage of the Census information.

“When using model based estimates for counties, subcounties or census tracts, it is important to determine whether the model is overfit or underfit and to check diagnostics regarding the model’s appropriateness.”

Census Bureau Response

We appreciate the Committee’s support for the use of a purposive sample for this part of the ACS program. We are in total agreement that it is not appropriate to make inferences about the national population from this sample.

We thank the Committee for this suggestion. We shall investigate the specific suggestions made at the Committee meeting, some of which have particular promise for “short form” characteristics, such as population and housing, which are an important part of the ACS estimates.

During this fiscal year, we do not have staff available to work on this topic, but will try to assign someone to consider these issues next year. We would like to consult with individual committee members to discuss details of methods for taking advantage of the census information as the work proceeds.

We agree that overfitting and underfitting are both danger areas with the approach that we have proposed and appreciate the Committee's cautionary remarks about the need for checking the appropriateness of the model.

Recommendation 6

Measuring the Information Sector

"The Committee recommends the following on measuring the information sector:

"1. Clearly articulate the goals of the measurements effort. What are the questions/issues these data will be used to address?

"2. To identify appropriate measures of activity in these industries, start with annual reports of firms in these industries, and work with a forum of accounting/finance professionals to get their perspective on measuring performance of firms in these industries and also because of their influence on corporate recordkeeping. As appropriate, consult with officials such as those at the Federal Communications Commission (FCC) who are also dealing with difficult measurement issues in this sector.

"3. Recognize and plan for the difficulties and special considerations of collecting data on/from small businesses (because they may be more likely to be in these industries). Also, plan for electronic reporting and initiate these firms right away since they may be more likely to use information technology.

"4. Recognize and plan for the measurement problem associated with electronic delivery of the outputs of these firms, particularly capturing exports and imports.

"5. Don't try to do this alone. Establish a joint project with relevant research organizations, such as the NBER, to develop the concepts needed to measure outputs and inputs of industries in this sector; for example, in the broadcasting industry, collecting the amount of time devoted to the various expenditure activities provides the opportunity for calculating the average price for each of these activities.

"6. Focus on produced and consumed products and services.

"7. Investments in information technology (IT) and purchased IT services will be particularly relevant. Intellectual property will be important here as well. Distinctions among labor types (e.g., programmers) will be useful to develop estimates of intellectual property and investment (such as software development)."

Census Bureau Response

The Census Bureau thanks the Committee for its recommendations concerning data collection for the Information Sector under the North American Industry Classification System (NAICS). We found your comments, and the session in general, to be extremely helpful in focusing on the important issues that will face us in developing this program initiative.

As you correctly point out, data collection for these industries is complicated by conceptual problems in defining the appropriate output measures and by the large number of small businesses in the sector. We will follow your suggestions in starting with the annual reports of publicly held companies and conferring with accounting and finance professionals in constructing the survey instrument(s). Already, we have made contact with the Federal Communications Commission (FCC), other Federal agencies, and a number of trade organizations in the course of our ongoing survey work covering a number of these industries and in NAICS development. We will also explore opportunities for developing joint projects with relevant research organizations.

We agree that the nature of the industries covered by this sector also presents unique opportunities in the area of electronic reporting. We will pursue this option, particularly with the largest complex companies, as a means of improving the quality and timeliness of response and to reduce the reporting burden on individual firms.

Recommendation 7

Economic Census Product Marketing

"We commend the Census Bureau for undertaking the ambitious initiative of integrating response and product marketing for the 1997 Economic Census. This will serve to maximize marketing expenditures, particularly important when budgets are tight.

"We recommend the use of spokespersons and case histories. A case history will demonstrate the value of Census data to both respondents and users. In addition, the case history should communicate the timely and accessible benefits of the economic census."

Census Bureau Response

The Census Bureau welcomes the Committee's encouragement to pursue an integrated marketing message for promoting both products and responses. Based on the results of recent focus groups (as well as to maximize the effectiveness of marketing expenditures), we plan to communicate a consistent theme of user benefits as an integral component of both response and product marketing.

Statements in support of the 1997 Economic Census have been obtained from Alan Greenspan, Chairman of the Federal Reserve Board, and several other prominent members of the business and economic communities. We also plan to employ a number of spokespersons to promote the 1997 Economic Census, including the Director of the Bureau of Economic Analysis and the Presidents of the National Restaurant Association and the Electronic Industries Association.

Working in conjunction with our advertising agency, we have developed the following duties for designated trade association spokespersons on behalf of the 1997 Economic Census:

- Prepare and/or deliver statements related to the 1997 Economic Census at scheduled press conference(s).

- Allow the use of his/her name to be attributed to quotes and/or editorials related to the 1997 Economic Census.

- Encourage development and/or placement of news items about the 1997 Economic Census in his/her organization's publications.

- Be available, when notified, to field questions from and provide comments to media representatives regarding the 1997 Economic Census.

- Serve as an advocate within his/her business or industry segment for completion and submission of the 1997 Economic Census in a timely manner.

Concerning case histories, we will collect examples of actual data use and identify the key concepts that users find most helpful in understanding census data. We plan then to communicate appropriately interesting examples as part of various training and promotion materials and activities.

Recommendation 8

Marketing Research Plan

"The Census Bureau is to be applauded for the progress made and commitment to being market driven.

"Recommendations for research to support these efforts are:

"1) Accelerate the development of a systematic research framework.

"2) Design into the research framework a process of assessment using the go-stop-evaluate approach.

"3) Include futuring techniques in the research framework as a way to explore strategic opportunities.

"4) Expand and enhance the process of integrating multiple information sources into the research framework.

"5) Explore creative, engaging methods of disseminating internal data intelligence to foster continuous learning throughout the Census Bureau."

Census Bureau Response

The Census Bureau thanks the Committee members for sharing their valued time and expertise. Over the next several months, the Census Bureau plans to adjust and/or augment its marketing research plan in the following ways:

The Marketing Services Office (MSO) will:

- Continue to dedicate staff to the creation of useful product and customer databases and research reporting systems.

- Continue to work closely with all other areas of the Census Bureau to expand and enhance the process of integrating multiple information sources into the research framework. We are meeting with those who record and/or collect information about communications and transactions with customers to see that the databases contain qualitative and quantitive information that can be shared throughout the organization.

- Incorporate a focusing framework into the research process. We will identify and compare what customer segments value or do not value to what we do well or what we do not do well. This will provide us with an assessment tool and a "go-stop-evaluate" approach.

- Communicate the availability of the research data to all areas of the Census Bureau; make special presentations to our internal customers that would include preresearch discussions, meetings, and/or conferences to explain concepts, anticipated results, and actions; and foster continuous learning throughout the Census Bureau.

- Continue to use the Internet as a source for secondary research information. Also, we will continue to monitor and evaluate other sources of secondary research as an alternate avenue to conducting our own research when attempting to make forecasts about the future of our products and services.

Recommendation 9

Training and Development Programs

"We commend the Bureau for its ambitious training and development goals related to customer focus and marketing. With respect to training and development activities and goals, we recommend:

"1) That the Bureau focus on making all functions customer focused rather than making the Bureau driven by the marketing function.

"2) That the Senior staff of the Bureau be involved in a workshop to identify and prioritize different customer sets and the organizational and resource implications of serving each. These priorities should be clearly communicated throughout the organization.

"3) That the Bureau use a training process of Learn, Use, Teach and Inspect (LUTI) whereby more senior managers become teachers of more junior managers."

Census Bureau Response

The Census Bureau welcomes the Committee's recommendations regarding customer focus and marketing.

- We will attempt to adopt a customer-focused service system, externally focused on customer expectations, needs, and perceptions of value, and internally focused on divisional needs to create seams of service delivery.

- The senior management will become more involved in identifying customers, competencies, and standards. We agree that these elements need to be identified before we continue to implement the general workforce education. The recommendation for a 2-day marketing retreat for senior leaders will be considered.

- While we agree that the LUTI approach will provide the Census Bureau a cost savings, we question its implementation potential at the current time for two primary reasons: (1) this top-down training strategy was implemented several years ago at the Census Bureau with limited success; (2) it is used successfully at Xerox because they have a history of placing heavy emphasis on employee participation in operational decisions, due largely to their decentralized management style. We are in the early stages of promoting more active employee participation in decision-making at the Census Bureau. We believe that when we reach a more advanced stage, the LUTI approach will potentially be useful.

<u>Recommendation 10</u>

<u>Survey of Program Dynamics (SPD)</u>

"In making decisions about sampling and survey content for the Survey of Program Dynamics, the Committee recommends that the Census Bureau consider the place of the SPD in the broader Federal effort to collect data on the effects of welfare reform. In particular, the SPD should focus its efforts on longitudinal issues."

<u>Census Bureau Response</u>

We concur with the Committee's recommendation that the SPD focus on collection of longitudinal data to assist in the evaluation of welfare reform. The longitudinal focus will be the critical element directing all decisions about sampling and content.

Three kinds of information will be of use to those investigating welfare reform—process (descriptive), cross-sectional (snapshots), and longitudinal data. Process information provides the context by which other information can be interpreted and cross-section microdata can be and has been used to evaluate the effects of program changes; but longitudinal data collection is critical for pre-post analysis, in which the characteristics of a population pre-reform are used to control for independent factors when evaluating outcomes post-reform for the same people.

Process information will be available from three sources:

1) Reports to the Department of Health and Human Services;

2) A University of Wisconsin project supported by the SPD to describe state programs along a set of common dimensions (descriptive factors); and

3) A parallel effort by Urban Institute's Accessing New Federalism Project.

Cross-section information will come from two main sources:

1) March Current Population Surveys (the source most used for such analyses in the past); and

2) The National Survey of American Families (to be carried out in 1997 and possibly again in 1999).

Longitudinal data will also come from two sources:

1) The 1996 panel of the Survey of Income and Program Participation (SIPP); and
2) The new Survey of Program Dynamics.

We also hope to use administrative records to enhance the SIPP and SPD survey data to provide an even broader and longer-run picture of the pre- and post-reform economic situation of the surveyed households.

Recommendation 11

"The SPD sample should include a supplement drawn from among the 1995 and 1996 March CPS samples. The supplement should consist of a subsample of the low-income households that took part in the CPS. The Census Bureau needs to carry out research on how to select and combine the CPS sample with the main SIPP sample to produce estimates without introducing additional bias. The supplement could be used to improve the quality of estimates for those most affected by the recent welfare reform legislation.

"To avoid the likely bias in the measurement of money income for poor or welfare dependent households, the Committee urges the Census Bureau to experiment with the development of consumption measures, especially in the area of food expenditures and housing expenditures, that could be expected to provide a better measure of change over time in living standards. Such measures should be introduced in the 1998 SPD that covers calendar 1997."

Census Bureau Response

The Census Bureau thanks the Committee for its recommendation. After discussions with the American Statistical Association Survey Research Methods Section's subcommittee on SIPP and SPD, we have decided to adopt their recommendation and supplement the 1997 SPD sample with additional households. Instead of using retired CPS households as you suggest, though, because of our mutual desire to emphasize the longitudinal data we will attempt to interview (in 1998) all 1992 and 1993 panel households that had a completed interview in wave 1 of SIPP but dropped out of the SIPP sample before the last SIPP wave, and were in poverty as of the last actual interview wave. That subcommittee argued, and we concur, that that is the most efficient way to reduce attrition bias resulting from differential nonresponse of low-income households. To accommodate our limited budget, however, as we noted at the meeting, we will be forced to subsample the households interviewed in 1997. We have tentatively decided to keep all households with children, and all households whose income is less than either 175 or 200 percent of the applicable poverty threshold, depending on forthcoming cost estimates on field interviewing costs. That will unfortunately leave a relatively small "balance of sample," but we have adopted this strategy because the central goal of the SPD is to examine the effects of welfare reform on the low-income population.

We are looking into the feasibility of adding a short sequence of consumption measures on foodand housing expenditures to the 1998 SPD Survey. We look forward to receiving Dr. Juster's (AEA) recommendations for these questions. However, we must point out that, due to the complexity and length of the SPD questionnaire and the associated time required, our ability toadd new questions is extremely limited. We will have a firm handle on the interview length afterwe obtain the results from the pretest this fall. Also, we plan to give priority to new observationsfor the measures that already exist for the 1992/1993 SIPP panels in the 1998 SPD over anynew measures. In planning for the 1999 SPD, we will review this issue further.

Recommendation 12

Cooperative Research and Development Agreements (CRADAs)

"Regarding CRADAs, we recommend that the Census Bureau:

"1) Continue to form partnerships with commercial research suppliers and to explore partnerships with academic institutions.

"2) Assess partnerships in which the Census Bureau is the lead user for commercial products and technologies.

"3) Explore possible partnership activities centered on ensuring compatibility between the old SIC and new NAICS systems."

Census Bureau Response

The Census Bureau will continue to form partnerships with commercial research suppliers and will explore opportunities for partnerships with academic institutions. The Census Bureau also will assess possibilities for partnerships involving commercial products and technologies of which we are the lead user and explore new possibilities based on the conversion of the old SIC to the new NAICS systems. We will advise the Committee of our activities.

Recommendation 13

Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)

"We realize that the Census Bureau is acting in large part as an agent for the Agency for Health Care Policy and Research (AHCPR) in this data gathering project; therefore, our recommendations are intended for both agencies.

"First, based on the information given us from the second pilot, we were unable to determine the extent to which co-payments were being distinguished from deductibles, how prescription drug cost sharing differed from that for other medical-related benefits, and how overall mental health/substance abuse annual or lifetime benefit limits were distinguished from those not involving mental health. We understand that MEPS-IC will attempt to obtain data on these benefit design characteristics from the employers or insurers. While we have no explicit, detailed recommendations on this, we strongly encourage the MEPS-IC to ensure that this critical information be included in its data collection efforts. We also urge that the MEPS-IC investigate possibilities of integrating historical data on medical histories of individuals, so that factors affecting the employee's choice of health plan could be analyzed, and the impact of legislation could be more adequately assessed.

"Second, the data being collected in this project might, in principle, permit researchers to conduct hedonic price and related analyses on the relationship of insurance premia to the benefit characteristics of the plans, and the risk factors of the population. We urge the MEPS-IC to keep this important research objective in mind in implementing final details of the MEPS-IC, and to consult with officials at the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA), as appropriate, on the use of these data for facilitating research on generating a price series on health insurance over time."

Census Bureau Response

The Census Bureau and AHCPR understand the importance of accurate data on copayments and deductibles. Although the respondents had difficulty reporting these items in the first pilot, the quality of the reporting was much better in the second pilot. We benefitted from the streamlined, more-focused questionnaire in general and also from specific wording changes to the questions on deductibles. The Census Bureau will conduct a post-survey analysis that compares response data to brochure data to evaluate the quality of these and other responses.

As this is the Census Bureau's first attempt at the survey, we wanted to keep the subject matter manageable to allow us also to focus on methodological and operational concerns. We limited the current survey to the most important questions. The 1996 collection will help us to understand more about the insurance providers' ability to report health insurance information. Our long-range plan is to make annual updates and enhancements to the questionnaire content, which may provide AHCPR with additional analytic capabilities.

As to the second point, staff from the Census Bureau and AHCPR meet regularly with representatives of the National Center for Health Statistics (NCHS) and the BLS to discuss concepts and collection methodologies. These meetings have served as a forum to exchange relevant ideas on employee health benefit issues. Moreover, they will help to ensure the consistency of related data series across agencies.

Further, the Department of Health and Human Services has initiated a Charter for the Interdepartmental Committee on Employer Insurance Surveys. The Committee will provide agencies conducting employer surveys with the outlet to express concerns and propose solutions to related data collection efforts. The Committee will include representatives from the BLS, the Census Bureau, the NCHS, the BEA, the Office of Management and Budget, and the Health Care Financing Administration.

The Census Bureau collaborated with representatives from the AHCPR on this response.

Recommendation 14

Disclosure Limitation Option
"Confidentiality of respondents (individuals and firms) is a serious responsibility and should remain a priority issue for Census data. A single malicious incident could cause irreparabledamage to the Federal statistics system and could damage respondent participation andcooperation. Making high quality data available to the public, to business, and to thescientific and public policy communities is also of high priority and searching for ways tomake more data available while maintaining confidentiality is of critical importance as weface tough information requirements to support significant public policy debate. More dataas well as accurate data is needed to facilitate informative behavioral research and effectivepublic policies. Meeting both of these standards is a challenge. We encourage the CensusBureau to support research on these issues so that the best possible solution can be attainedwithin the various specific settings and purposes for which the data are to be used.

“Concerning recommendations on specific proposals, the issues arising for the preparation of tabular data and for micro data are different and may require different methods. Fortabular data, arising from economic or demographic data, care should be taken to ensure thatthe information loss or bias introduced from adding noise does not significantly distort theinformation in the original tabular data (without noise). Especially with highly skewedeconomic data the manipulation required to attain confidentiality may be so great as to voidthe value of the resulting tabular data. For micro demographic data on the other hand,adding imputed values or random "white" noise to individual variables may be a valuabledata complement without compromising confidentiality; for example, multiple imputationsof top-coding income values and adding random noise to adjusted gross taxable incomelinked to the Survey of Income Poverty Participation (SIPP). An important principleendorsed by the members from the American Economic Association (AEA) is that the usercommunity for any Census data source should be informed of any intentional addition of noise to publicly released data.

“Because of the limitations of adding noise to data to maintain confidentiality, the AEA members endorse the principle of making more complete data available on a limited basis to trusted or bonded members of the scientific research community and the use of secure Research Data Centers.”

Census Bureau Response

The Census Bureau thanks the Committee for its recommendations. We agree that disclosure limitation research is important because any breach of confidentiality could harm future programs and because disclosure limitation techniques affect both the amount and the quality of the data we release. Research in this area will continue.

We agree that if noise addition is used as a disclosure limitation technique, we must ensure that the resulting information loss or bias does not significantly distort the information in the original data. We agree that a vital part of performing disclosure limitation is informing data users of what was done. While we may need to withhold some information about our procedures, such as parameter values, we can inform data users about the methods that are used.

We also agree that having Special Sworn Employees conduct research at secure ResearchData Centers is an excellent way of making more complete data available to the scientificresearch community. We will continue this practice and will work toward establishing a larger number of secure Research Data Centers.

Recommendation 15

“The Committee encourages continuation of the Census Bureau’s initiative to engage in research of methods to release more data without compromising confidentiality of the respondents.

“We recommend that the Census Bureau inform users of the methods used to preserve confidentiality and about any limitations on the resulting data as part of the documentation of any publicly released data. We also recommend that the Census Bureau consider alternatives to adding noise to data. In cases where adequate disclosure limitation will seriously distort analysis, the Census Bureau should focus on methods that reduce the detail of released data.”

Census Bureau Response

The Census Bureau thanks the Committee for its recommendations. We agree that disclosurelimitation research is important because any breach of confidentiality could harm future programs and because disclosure limitation techniques affect both the amount and the quality of the data we release. Research in this area will continue.

We agree that a vital part of performing disclosure limitation is informing data users of what was done. While we may have to withhold some information about our procedures, such as parameter values, we can inform data users about the methods being used. We also agree that it is important to educate data users on appropriate methods for analyzing our data.

We will gladly consider all alternatives for disclosure limitation and will try to use the techniquesthat data users prefer. While it may be difficult to get users to agree on which techniques arepreferable, the question is worth asking.

<u>Recommendation 16</u>

<u>New Product Development</u>

"We endorse the Census Bureau's efforts to develop products for which customers are charged a fee. We recommend that the Bureau carefully evaluate alternative pricing models that focus on the value of convenience, clarity, complementary use, and timeliness of the information rather than the information per se."

<u>Census Bureau Response</u>

The Census Bureau values the Committee's endorsement of our efforts to develop products for which we charge a fee. Within Federal information policy guidelines, the Census Bureau will evaluate alternative pricing models as recommended by the Committee. The Census Bureau will also examine the possibilities of placing new databases behind the fee wall.

<u>Recommendation 17</u>

"We commend the Census Bureau for the development of an integrated New Product Development process. The decision to focus effort on registering all existing products in a database to track performance will provide a strong information foundation for product management. Analysis of the information in the database will yield good information about the products life cycle and reasons for growth, development or stagnation.

"We recommend that step #9**,** 'Identify and Provide Technical Support Required,' be moved toearlier in the process, as the technical support required for a product could have a strong impact on pricing strategy, costs, documentation and product delivery strategy.
"While the New Product Development Guidelines are appropriate for the Bureau at this time, this process can become an important tool in changing the culture of the Bureau to be morecustomer-focused, innovative and creative. In order to continue progress in the reinvention of the Census Bureau, we recommend:

"1) Expand the "front-end" of the new product development process to identify new product ideas from non-traditional sources for the Census: marketing research, customer service staff.

“2) Use the Internet and Intranet to publicize and explore new product development ideas.

“3) Focus on what is learned from the development process, whether it produces a successful product or not.

“4) Review new products in development with Bureau Senior Management on a regular, periodic basis.

“5) Reward and recognize Bureau employees for new product ideas, to encourage risk-taking, innovation and creativity.”

Census Bureau Response

We thank the Committee for its valued review of the Census Bureau’s New Product Development process. As recommended, we will:

- Include the analysis of technical support needs for a product in the early stages of the process so we can include those data when developing pricing strategies, costs, documentation, and product delivery systems.

- Monitor and evaluate products and services offerings and strategies by statistical agency counterparts and statistical information providers.

- Incorporate customer feedback into our processes by taking concepts to them through the use of surveys, focus groups, and other means.

- Use a pipeline of ideas and offer opportunities and rewards for “blue sky” brainstorming.

- Keep Census Bureau senior management regularly informed through steering committee meetings and presentations of new product and service developments.

- Implement the newly created reward systems for employees to encourage new product ideas, innovation, and creativity.

The Census Bureau has developed (pending Department of Commerce approval) a new award, the “Director’s Award for Innovation,” to communicate clearly the priority the agency attaches to innovative behavior. This large cash award will recognize Census Bureau employees (individuals and teams) for process, product, and service innovations.

The Census Bureau will keep the Committee apprised of its progress based on these recommendations. We look forward to working with the Committee in the future.

Recommendation 18

Survey Processing Operations

“Development and use of generalized systems is a laudable initiative that deserves support at the highest level of management.”

Census Bureau Response

We thank the Committee for its review of the Economic Programs Directorate's plans todevelop generalized software for survey processing operations. Based on the Committee'saffirmation that this is a worthwhile goal, we plan to continue the development of the generalized systems we have described to the Committee. This effort is being supported at all levels of management in the Economic Programs Directorate—significant staff resources have been dedicated to this effort and funds have been earmarked to purchase the needed equipment. This effort also is receiving support from the Census Bureau's Computer Assisted Survey Research Office in the form of funding for contractor staff.

Recommendation 19

Center for Economic Studies

"The members support the work of the Census Bureau's Office of the Chief Economist and the Center for Economic Studies and recommends:

"1) Expanding the number of Research Data Centers using the National Science Foundation as a partner to help guide and support the effort; and

"2) Pursue enhancing the Research Data Centers by making them 'Federal Research Data Centers.' Federal Research Data Centers would provide the research community access to the microdata from Federal statistical agencies (e.g., BLS, Census) at various secure sites around the country."

Census Bureau Response

The Census Bureau thanks the Committee for its support of our Research Data Center(RDC) Program. We will discuss with representatives from other Federal statisticalagencies whether it is feasible to establish "Federal Research Data Centers." Determining the feasibility of establishing Federal centers is an important factor in how we pursue the expansion of the number of RDCs. We also will discuss with the National Science Foundation (NSF) a "call for proposals" for new RDCs. Working with the NSF is important given their close connections with the research community and given that RDCs must be largely self-financing.

Recommendation 20

Data Access and Dissemination System (DADS)

"We recommend an aggressive and proactive communications plan for DADS--one thatemphasizes user benefits rather than features. The plan must include communicationstailored to the less informed occasional user as well as to the knowledgeable expert user."

Census Bureau Response

The Census Bureau has developed a comprehensive communications strategy for DADSfocusing on both internal and external audiences. We are currently recruiting for a DADSoutreach coordinator to begin aggressive implementation of this communications plan. Wewill ensure that all DADS communications prominently address benefits of the new systemand are tailored for both laypersons/novices and expert users.

Recommendation 21

Usual Residence Elsewhere (URE)

“We understand that current 2000 Census plans call for a change in the method of obtaining data about usual residence elsewhere.

“Traditionally, this information has been solicited directly on the census form, with space for respondents to enter their exact address of their usual residence when it differs from the address at which the enumeration takes place. The current plan relies on respondents using a toll free (800) number.

“The Committee is concerned that these changes may result in significant decreases in the number of URE households identified. We believe that a specific evaluation of the effects of this change is warranted.”

Census Bureau Response

The 1990 census questionnaire included a “Whole Household Usual Home Elsewhere (WHUHE)” question that was part of the initial roster question. The objective of the question was to identify those addresses at which every person had another “usual” address. Our evaluation of 1990 census results indicated less than optimal performance of the WHUHE question. Specifically, respondents had trouble understanding the WHUHE question.

The Census Bureau has developed an alternative approach that will allow respondents who believe they may be in a WHUHE situation to call the toll-free census Telephone Questionnaire Assistance (TQA) operator for information about how to fill out the form correctly. The TQA operator will receive the training necessary to determine WHUHE status. This training also will assure that the TQA operator has an understanding of the concept of usual residence as well as the correct application of the residence rules. We will use this approach for the first time in the Census 2000 Dress Rehearsal that will take place during 1998. Staff will evaluate the results from the Dress Rehearsal against the 1990 experience to determine the most appropriate method of collecting accurate WHUHE information in Census 2000 to assure that people are counted in the most appropriate location. If we choose to use the new approach in Census 2000, our working plan is to have the TQA operators conduct an immediate complete interview for households that they identify as WHUHE cases.

Appendix B

REVISED 4/30/97

Agenda for the May 1-2, 1997, Meeting of the Census Advisory Committee of Professional Associations*

Bureau of the Census
Room 1630, Federal Building 3
The Francis Amasa Walker Conference Center
Suitland, Maryland 20233

Thursday, May 1
Gannett, Hollerith, and Kallek Conference Rooms

PLENARY (9:30 - 10:30 a.m.)

Joint Session
Introductory Remarks
Martha Farnsworth Riche
Director
Gannett, Hollerith, and Kallek Conf. Rms

PLENARY (10:30 - 10:45 a.m.)

Census Bureau Responses to Committee Recommendations/Report on October, 1996
Meeting, *Jacob Klerman*, Chairperson
Gannett, Hollerith, and Kallek Conf. Rms

BREAK (10:45 - 11:00 a.m.)
Foyer

AEA, ASA (11:00 a.m. - 12:00n)

How Do We Convert the 1992 Economic Censuses to a NAICS Basis?
Howard Hogan, Services Division
Chair: AEA
Gannett, Hollerith, and Kallek Conf. Rms

AMA, PAA (11:00 a.m. - 12:00n)

How Should the Census Bureau Communicate Plans for 2000 Census Products?
John Kavaliunas, Marketing Services Office
Chair: AMA
Conf. Rm. 2113

*All sessions include question/answer.

LUNCH/DISCUSSION/EXHIBITS (12:00 p.m.)

X-12 ARIMA; STAMP; Landview; Data Collection via the Internet; National Content Survey Findings and Census 2000 Content Proposal
(Conf. Rms. 2416, 2420, 2424)

ASA, PAA (1:15 - 2:15 p.m.)

What Improvements Can Be Made to New American Community Survey Introduction and Benchmarking Plans?
Preston Jay Waite and Charles Alexander, Demographic Statistical Methods Division
Chair: ASA
Gannett, Hollerith, and Kallek Conf. Rms

AEA (1:15 - 2:15 p.m.)

How Will Measuring the Information Sector Impact the Bureau's Programs?
Stacy Furukawa and Ruth Bramblett, Services Division
Conf. Rm. 2113

AMA (1:15 - 1:45 p.m.)

What Should the Census Bureau Charge for on the Internet and What Market Segments Should We Target?
John Kavaliunas, Marketing Services Office, and *Michael Garland*, Administrative and Customer Services Division
Conf. Rm. 3416

AMA (1:45 - 2:15 p.m.)

What Opportunities for Cooperative Research and Development Agreements (CRADA's) Should the Census Bureau Pursue?
John Kavaliunas, Marketing Services Office
Conf. Rm. 3416

ASA, PAA (2:15 - 3:15 p.m.)

What are the Issues in Implementing the Survey of Program Dynamics (SPD)?
Daniel Weinberg, Patricia Johnson, *and the SPD Team*, Housing and Household Economic Statistics Division
Chair: PAA
Gannett, Hollerith, and Kallek Conf. Rms

AEA (2:15 - 3:15 p.m.)

What Have We Learned From the Medical Expenditure Panel Survey-Insurance Component Pilot?
Steven Rudolph and Paul Hanczaryk, Economic Planning and Coordination Division
Conf. Rm. 2113

AMA (2:15 - 3:15 p.m.)

Assessment of Integrated Response and Product Marketing Plan for the 1997 Economic Census
Mark Wallace, Economic Planning and Coordination Division
Conf. Rm. 3416

BREAK (3:15 p.m.)

ASA, PAA, AEA (3:30 - 5:00 p.m.)

Should We Add Noise to Data (Economic, Demographic, or Census) as a Disclosure Limitation Option?
Laura Zayatz, Statistical Research Division
Chair: ASA
Gannett, Hollerith, and Kallek Conf. Rms

AMA (3:30 - 4:30 p.m.)

The U.S. Census Bureau's Marketing Training and Education Program: Present Needs and Future Challenges
Debra Spinazzola, Marketing Services Office
Conf. Rm. 2113

AMA (4:30 - 5:00 p.m.)

Final Review of New Product Development Guidelines
Joanne Dickinson, Marketing Services Office
Conf. Rm. 2113

ADJOURN (5:00 p.m.)

ASA (9:00 - 10:00 a.m.)

How Should We Proceed to Develop Generalized Software for Survey Processing Operations Such as Editing, Imputation, Estimation, etc.?
Richard Sigman, Economic Statistical Methods and Programming Division
Conf. Room 2113

PAA (9:00 - 10:00 a.m.)

Discussion of Concept Differences Between American Community Survey and Census 2000
Stan Rolark, Population Division, *Charles Alexander*, Demographic Statistical Methods Division
Morris Hansen Auditorium

AMA (9:00 - 10:30 a.m.)

Market Research at the Census Bureau--Are We on the Right Track?
Joanne Dickinson, Marketing Services Office
Conf. Rm. 3416

AEA (9:00 - 9:45 a.m.)

Center for Economic Studies featuring the Bureau's new Chief Economist, *John Haltiwanger*
Gannett, Hollerith, and Kallek Conf. Rms

AEA (9:45 - 10:30 a.m.)

What are the Main Issues Facing the Federal Economic Statistics System?
Everett Ehrlich, Under Secretary for Economic Affairs
Gannett, Hollerith, and Kallek Conf. Rms

BREAK (10:00 a.m.)

AEA (10:45 - 11:45 a.m.)

Develop Recommendations and Special Interest Activities
Gannett, Hollerith, and Kallek Conf. Rms

AMA (10:45 - 11:45 a.m.)

Develop Recommendations and Special Interest Activities
Conf. Rm. 3416

ASA (10:15 - 11:45 a.m.)

Develop Recommendations and Special Interest Activities
Conf. Rm. 2113

PAA (10:15 - 11:45 a.m.)

Develop Recommendations and Special Interest Activities
Morris Hansen Auditorium

CLOSING SESSION (11:45 a.m.)

Continued Committee and Staff Discussion
Plans and Suggested Agenda Topics for Next Meeting
Gannett, Hollerith, and Kallek Conf. Rms

ADJOURN (12:15 p.m.)

Appendix C

Bureau Personnel Present
(Asterisk [*] indicates Committee coordinator)

Director's Office

Martha Farnsworth Riche, Director
Judith Waldrop, Special Assistant
Bradford R. Huther, Deputy Director
Peter Bounpane, Assistant to the Deputy Director
Paula J. Schneider, Principal Associate Director for Programs
Philip L. Sparks, Associate Director for Communications
Frederick T. Knickerbocker, Associate Director for Economic Programs
Thomas L. Mesenbourg, Assistant Director
Robert W. Marx, Associate Director for Decennial Census
Nancy M. Gordon, Associate Director for Demographic Programs
Mimi Born, Special Advisor
Barbara A. Garner, Special Advisor
Cynthia Z. F. Clark, Associate Director for Methodology and Standards

Administratiave and Customer Services Division

Michael Garland, Assistant Chief
Leslie Solomon, Chief, Customer Services
Kathy Italiano
Michael Lucas
Kathy Maney
Janet Paul
Barbara Sherry
Artina Venning
Brenda Williams

Chief Economist Office

John C. Haltiwanger, Chief
Arnold P. Reznek

Demographic Statistical Methods Division

Preston Jay Waite, Chief
Charles H. Alexander, Assistant Chief

Economic Planning and Coordination Division

Robert Marske, Special Assistant
Paul Hanczaryk
Steven Rudolph
Mark Wallace

Economic Statistical Methods and Programming Division

Nash J. Monsour, Assistant Chief
Carma Hogue, Group Leader
Maribel Aponte

Richard Sigman

Field Division

Richard L. Bitzer, Acting Chief
Michael J. Weiler, Assistant Chief
Alfonso E. Maribal, Dallas Regional Director
Joe A. Cortez, Chief, Partnership and Data Services Program

Housing and Household Economic Division

Daniel H. Weinberg, Chief
Charles Nelson, Assistant Chief
Patricia Johnson, Team Leader
David Altvater
Larry L. Beasley
Sue Galeano
Jane S. Maynard
Geraldine Mekonnen
Leathea Lamison-White

Manufacturing and Construction Division

Stephen Andrews, Assistant Chief
Stacey Cole
Cathy Ritenour
Robert Struble

Marketing Services Office

John Kavaliunas
Joanne Dickinson
Josephine Ruffin
Debra Spinazzola

Policy Office

William F. Micarelli, Acting Chief, History Staff
Ramala Basu
Deloris Byers
George Gatewood
Michael A. Hovland
David M. Pemberton

Population Division

Stanley J. Rolark, Chief, Population and Housing Program Branch
Bashir Ahmed

Public Information Office

Deborah Barrett

Services Division

Howard Hogan, Assistant Chief
Sidney Marcus, Chief, Financial Census Branch
Ruth Bramblett
Stacy Furukawa
Carol Manka

Statistical Research Division

Easley Hoy, Assistant Chief
Leroy Bailey, Principal Researcher
Kent Marquis, Principal Researcher
Robert Templeton
Laura Zayatz

Technologies Management Office

John W. Marshall, Chief

Appendix D

MAY 1997

MEMBERSHIP LIST
CENSUS ADVISORY COMMITTEE OF PROFESSIONAL ASSOCIATIONS
(AMERICAN ECONOMIC ASSOCIATION)

Dr. Ernst R. Berndt
E52-452
Massachusetts Institute of Technology
50 Memorial Drive
Cambridge, MA 02139
Term Expiration : 12/31/98
Phone: (617) 253-2665
FAX: (617) 258-6855
Email: erberndt@mit.edu

Dr. Roger R. Betancourt
Department of Economics
University of Maryland
College Park, MD 20742
Term Expiration: 12/31/99
Phone: 301-405-3479
FAX: 301-405-3542
Email: betancourt@econ.umd.edu

Dr. Ellen R. Dulberger (Co-Chair)
IBM Personal Computer Company
Route 100 - B/3
Somers, NY 10589
Term Expiration: 12/31/97
Phone: (914) 766-3613
FAX: (914) 766-9356
Email: edulberger@VNET.IBM.COM

Dr. William C. Dunkelberg (Co-Chair)
Department of Economics
826 Ritter Annex
Temple University
Philadelphia, PA 19122
Term Expiration: 12/31/97
Phone: (215) 204-6686
FAX: (610) 667-6844

Dr. Michael Gort
Department of Economics
State University of New York-Buffalo
608 John Lord O'Brian Hall
Buffalo, NY 14260-1150
Term Expiration: 12/31/97
Phone: (716) 839-9776
FAX: (716) 645-2127
Email: gort@acsu.buffalo.edu

Dr. Lee Lillard
The Rand Corporation
1700 Main Steet
Santa Monica, CA 90401
Term Expiration: 12/31/97
Phone: (310) 393-0411 x6535
FAX: (310) 393-4818
Email: Lee_Lillard@rand.org

Dr. Ariel Pakes
37 Hillhouse
Yale University
New Haven, CT 06520
Term Expiration: 12/31/98
Phone: (203) 432-3550
FAX: (203) 432-6323
Email: ariel@econ.yale.edu

Dr. Frederic M. Scherer
Harvard University
Kennedy School of Government
Cambridge, MA 02138
Term Expiration: 12/31/99
Phone: 617-495-9510
FAX: 617-496-0063
Email: patience@ksgrsch.harvard.edu

Dr. Robert Willis
3254 ISR
University of Michigan
P.O. Box 1248
Ann Arbor, MI 48106-1248
Term Expiration: 12/31/97
Phone: (313) 936-7261
FAX: (313) 747-1186
Email: rjwillis@isr.umich.edu

Committee Liaison: Ms. Paula Muroff
Room 3061, Bldg. 3
Phone: (301) 457-2846
FAX: (301) 457-2908
Email: Paula.N.Muroff@ccmail.census.gov

MAY 1997

MEMBERSHIP LIST
CENSUS ADVISORY COMMITTEE OF PROFESSIONAL ASSOCIATIONS
(AMERICAN MARKETING ASSOCIATION)

Mr. Tony Adams
Adams Marketing Services
921 Ivycroft Road
Wayne, PA 19087
Term Expiration: 6/30/99
Phone: (610) 688-2666
FAX: (610) 688-2666

Ms. Laurie Ashcraft
President
Ashcraft Research, Inc.
625 N. Michigan Ave., Suite 500
Chicago, IL 60611
Term Expiration: 6/30/98
Phone: (312) 751-5420
FAX: (312) 649-1646
Email: RESASHINC@aol.com

Dr. Kenneth Bernhardt
Chairman, Department of Marketing
College of Business Administration
Georgia State University
Atlanta, GA 30303
Term Expiration: 6/30/97
Phone: (404) 651-2740
FAX: (404) 651-4198
Email: MKTKLB@GSUSGI2.gsu.edu

Ms. Beth Fischer
President/Owner
Twin City Interviewing Service
3225 Hennepin Avenue S.
Minneapolis, MN 55408
Term Expiration: 6/30/98
Phone: (612) 823-6214
FAX: (612) 823-6215
Email: tcifischer@gnn.com

Ms. Katherine Jocz
Director of Research Management
Marketing Science Institute
1000 Massachusetts Avenue
Cambridge, MA 02138
Term Expiration: 6/30/98
Phone: (617) 491-2060
FAX: (617) 491-2065
Email: kjocz@msi. org

Dr. Mary Lou Roberts
Department of Marketing
and Communication
University of Massachusetts
100 Morrissey Blvd.
Boston, MA 02125-3393
Term Expiration: 6/30/97
Phone: (617) 287-7733
(508) 255-7166
FAX: (617) 287-7725
Email: Robertsml@umbsky.cc.umb.edu

Ms. Debra Semans
Vice President
Market Development/Expense Management
Carlson Wagonlit Travel
5897 Windward Parkway, Suite 100
Alpharetta, GA 30202
Term Expiration: 6/30/99
Phone: (770) 753-7703
FAX: (770) 753-7755

Dr. David Stewart (Chair)
Marketing Professor
University of Southern California
School of Business Administration
Los Angeles, CA 90089-1421
Term Expiration: 6/30/98
Phone: (213) 740-5037
FAX: (213) 740-7828
Email: dstewar@usc.vm.edu

Ms. Doris Walsh
W2 Publications
202 The Commons, Suite 401
Ithaca, NY 14850
School of Business
Term Expiration: 6/30/97
Phone: (607) 277-0934
FAX: (812) 277-0935
Email: 76500.1504@compuserve.com

Committee Liaison: Mr. W. Don Wynegar
Room 3023, Bldg. 3
Phone: (301) 457-2155
FAX: (301) 457-2778
Email: dwynegar@census.gov

MAY 1997

MEMBERSHIP LIST
CENSUS ADVISORY COMMITTEE OF PROFESSIONAL ASSOCIATIONS
(AMERICAN STATISTICAL ASSOCIATION)

Dr. Robert Bell (Chair)
Senior Statistician
The Rand Corporation
Mail Stop: SP1
1700 Main Street
Santa Monica, CA 90401
Term Expiration: 12/31/97
Phone: (310) 393-0411, x6672
FAX: (310) 451-6961
Email: robert_bell@rand.org

Dr. David A. Binder
Statistics Canada
11-F R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6
CANADA
Term Expiration: 12/31/97
Phone: (613) 951-0980
FAX: (613) 951-1462
Email: binddav@statcan.ca

Mr. Joseph Garrett
Vice President and Deputy Director
Mathematica Policy Research
600 Maryland Ave., S.W., Suite 550
Washington, DC 20024-2512
Term Expiration: 12/31/98
Phone: (202) 484-3091
FAX: (202) 863-1763
Email: JGARRETT@mathematica-mpr.com

Dr. Malay Ghosh
Department of Statistics
University of Florida
Gainesville, FL 32611-8545
Term Expiration: 12/31/98
Phone: (352) 392-1941 (ext. 232)
FAX: (352) 392-5175
Email: ghoshm@stat.ufl.edu

Dr. F. Thomas Juster
Professor, Institute for Social Research
University of Michigan - Ann Arbor
P.O. Box 1248
Ann Arbor, MI 48106-1248
Term Expiration: 12/31/99
Phone: (313) 764-4207
FAX: (313) 647-1186
Email: ftjuster@umich.edu

Dr. William O'Hare
The Annie E. Casey Foundation
701 St. Paul Street
Baltimore, MD 21202
Term Expiration: 12/31/98
Phone: (410) 223-2949
FAX: (410) 223-2956
Email: billo@aecf.org

Dr. Elizabeth A. Stasny
Department of Statistics
Ohio State University
148D Cockins Hall
Columbus, OH 43210-1247
Term Expiration: 12/31/97
Phone: (614) 292-0784
FAX: (614) 292-2096
Email: eas@stat.mps.ohio-state.edu

Dr. Lynne Stokes
Associate Professor
Department of Management
Science and Information Systems
University of Texas
Austin, TX 78712
Term Expiration: 12/31/97
Phone: (512) 471-5216
FAX: (512) 471-0587
Email: lstokes@mail.utexas.edu

Dr. Roger E. Tourangeau
National Opinion Research Center
1350 Connecticut Avenue, NW
Suite 500
Washington, DC 20036-1719
Term Expiration: 12/31/99
Phone: (202) 223-6040
FAX: (202) 223-6104
Email: tourange@norcmail.uchicago.edu

Committee Liaison: Dr. Rajendra P. Singh
Room 3209, Bldg. 4
Phone: (301) 457-4859
FAX: (301) 457-2299
Email: rsingh@census.gov

MAY 1997

MEMBERSHIP LIST
CENSUS ADVISORY COMMITTEE OF PROFESSIONAL ASSOCIATIONS
(POPULATION ASSOCIATION OF AMERICA)

Ms. Patricia Becker
APB Associates, Inc.
17321 Telegraph, Suite 204
Detroit, MI 48219
Term Expiration: 4/30/99
Phone: (313) 535-2077
FAX: (313) 535-3556
Email: pbecker@umich.edu

Dr. Linda Jacobsen
Equifax National Decision Sytems
Suite 400
5375 Mira Sorrento Place
San Diego, CA 92121
Term Expiration: 4/30/98
Phone: (619) 677-9619
FAX: (619) 550-5805
Email: linda.jacobsen@ends.com

Dr. Jacob Klerman (Chair)
The Rand Corporation
1700 Main Street
Santa Monica, CA 90406
Term Expiration: 4/30/98
Phone: (310) 393-0411 x6289
FAX: (310) 393-4818
Email: jacob_klerman@rand.org

Dr. Dowell Myers
Associate Professor
School of Planning VKC 351
University of Southern California
Los Angeles, CA 90089-0042
Term Expiration: 4/30/00
Phone: (213) 743-2469
FAX: (213) 743-2476
Email: dowell@usc.edu

Dr. Jeffrey Passel
Program for Research on
Immigration Policy
The Urban Institute
2100 M Street, NW
Washington, DC 20037
Term Expiration: 4/30/99
Phone: (202) 857-8678
FAX: (202) 452-1840
Email: jpassel@ui.urban.org

Dr. Ross Stolzenberg
Department of Sociology
University of Chicago
1155 East 60th Street
Chicago, IL 60637
Term Expiration: 4/30/98
Phone: (847) 835-8451
FAX: (847) 835-2487
Email: stolz@sam.spc.uchicago.edu

Dr. James Trussell
Office of Population Research
21 Prospect Street
Princeton, NJ 08544
Term Expiration: 4/30/98
Phone: (609) 258-4810
FAX: (609) 258-1418
Email: trussell@wws.princeton.edu

Dr. Paul R. Voss
Professor, Dept. of Rural Sociology
University of Wisconsin
311 Agriculture Hall
Madison, WI 53706
Term Expiration: 4/30/00
Phone: (608) 262-9526
FAX: (608) 262-6022
Email: voss@ssc.wisc.edu

Dr. Franklin D. Wilson
Center for Demography and Ecology
University of Wisconsin
1180 Observatory Drive, Room 4412
Madison, WI 53706
Term Expiration: 4/30/99
Phone: (608) 262-2182
FAX: (608) 262-8400
Email: wilson@ssc.wisc.edu

Committee Liaison: Mr. Larry Long
Room 302, Iverson Mall
Phone: (301) 763-8330
FAX: (301) 763-8412
Email: llong@census.gov

Appendix E

List of Background Documents

(Asterisk [*] indicates material distributed at meeting)

Agenda for the May 1-2, 1997, Meeting of the Census Advisory Committee of Professional Associations. n.d. 4 pp.

*Annual Survey of Communication Services: 1995 (BC/95). February 1997. 22 pp., tables and appendixes.

*CenStat: An Electronic Subscription Service. April 28, 1997. 3 pp.

*Discussion of Concept Differences between American Community Survey and Census 2000. May 2, 1997. 7 pp., attachment, comments, and The American Community Survey's "Two Month" Residence Rule. May 2, 1997. 7 pp.

*Federal Register, Part VI, Office of Management and Budget. August 28, 1995. 20 pp.

*Federal Register, Part XII, Department of Commerce. 1996 Race and Ethnic Targeted Test; Notice. December 1, 1995. 6 pp.

Final Review of New Product Development Guidelines. May 1-2, 1997. 6 pp.

How Do We Convert the 1992 Economic Censuses to A NAICS Basis? May 1-2, 1997. 8 pp., attachment 5 pp.

How Will Measuring the Information Sector Impact the Bureau's Programs? May 1, 1997. 8 pp., 3 attachments.

How Should the Census Bureau Communicate Plans for 2000 Census Products? May 1-2, 1997. 6 pp.

How Should We Proceed to Develop Generalized Software for Survey Processing Operations Such as Editing, Imputation, Estimation, etc.? May 1-2, 1997. 14 pp.

Market Research at the Census Bureau--Are We on the Right Track? May 1-2, 1997. 8 pp.

Membership List Census Advisory Committee of Professional Associations (American Economic Association). April 1997. 1 p.

Membership List Census Advisory Committee of Professional Associations (American Marketing Association). April 1997. 1 p.

Membership List Census Advisory Committee of Professional Associations (American Statistical Association). April 1997. 1 p.

Membership List Census Advisory Committee of Professional Associations (Population Association of America). April 1997. 1 p.

*New American Community Survey: Introduction and Statistical Comparison Plans. May 1, 1997. 1 p.

*Office of Management and Budget (OMB) Statistical Directive 15. n.d. 2 pp.

*OMB Announces Review of Federal Racial and Ethnic Categories and Related Public Hearings [from the Executive Office of the President, Office of Management and Budget]. June 9, 1994.
6 pp., including attachment.

*Outline of Remarks by John C. Haltiwanger, Chief Economist for AEA Census Advisory Committee. n.d. 5 pp.

*Population Division--Findings on Questions on Race and Hispanic Origin Tested in the 1996 National Content Survey [Working Paper No. 16]. December 1996. 22 pp., appendixes, tables.

*Potential New Collaboration Among Statistical Agencies [Draft]. April 24, 1997. 26 pp.

*SPD Issues. May 1, 1997. 2 pp.

*Talking Points on Schedule for Completing Review of Directive 15. April 29, 1997. 1 p.

The U.S. Census Bureau's Marketing Training and Education Program: Present Needs and Future Challenges. May 1-2, 1997. 9 pp.

What Are The Issues in Implementing the Survey of Program Dynamics? May 1-2, 1997. 8 pp.

What Have We Learned from the Medical Expenditure Panel Survey-Insurance Component Pilot? May 1-2, 1997. 16 pp.

What Improvements Can Be Made to New American Community Survey Introduction and Benchmarking Plans? May 1997. 4 pp.

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